

Content available at: <https://www.ipinnovative.com/open-access-journals>

Journal of Management Research and Analysis

Journal homepage: <https://www.jmra.in/>

Original Research Article

Vaccines with a shot of diplomacy: An analysis of the dynamics of power play between India and China

Zyna Dhillon^{1*}¹Invictus International School, Amritsar, Punjab, India

ARTICLE INFO

Article history:

Received 15-10-2023

Accepted 08-11-2023

Available online 25-11-2023

Keywords:

Center for Strategic and International Studies (CSIS)

Times of India (TOI)

Observer Research Foundation (ORF)

ABSTRACT

Aim/Scope: This paper aims to portray the strategic usage of vaccine diplomacy by India and China in their efforts for regional and global supremacy.

Design/Methodology/Approach: The paper begins with an analysis of power and its types as well as the ways in which it manifests itself in the real world. This is followed by an evaluation of vaccine diplomacy as a soft power and what distinguishes it from other forms of soft power. The paper then segues into a comparative analysis on India and China, with comparisons being made across the following metrics: outreach and quantum of vaccines donated, the conditionality of vaccines, diplomatic incentives and limitations faced in donating vaccines.

Findings: There is no clear winner in the battle. China trumps over India in terms of outreach but India's outreach donates vaccines while China sells them. The winner might not be clear but the path that India takes now may determine its future.

1. India must inoculate its domestic population. 2. India must revamp its vaccination program with assistance from its Quad allies. 3. India must begin locally albeit with an aim to go global. 4. India should either drastically subsidize all its vaccines or increase the proportion of vaccines donated for free vis a vis those sold commercially. 5. India must attempt to make inroads in countries where the efficacy of China's vaccines came under question. 6. India must try to take pre-emptive action to begin research on diseases predicted to rise with the insurgence of climate change.

Implications: As long as a pathogen exists, some one or the other will hold a monopoly on its vaccine and vaccines will continue to be served with a shot of diplomacy.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

14,000 feet above sea level, a fierce battle is underway on the banks of the Galwan River. Some soldiers succumb to frost bite, while others shiver the nights away. On one side of the invisible line that makes the border, the Tiranga flutters high. On the other, the Five-Star Red Flag reigns supreme. Daggers drawn, the soldiers fight gallantly. Yet, the most mighty of these battles (and the most latent) is fought 3000 km away in a quaint factory submerged in the Pune

industrial landscape, the pharmaceutical factory's mundane exterior beleeing the Battle of the Marne it represents. Vial after vial of the elixir that fights the coronavirus is capped and package after package of the vials is taped and shipped from one corner of Pune in a corner of Maharashtra in a corner of India to the rest of the globe. Similar efforts are made across the border in China. As 2.5 million Covishield and Covaxin doses are. This is not just a battle fought with nail studded rods and batons on a snow laden battleground produced every day, efforts to trump this production are made in Sinopharm facilities across China.¹ This is a battle fought with vaccines, masks, syringes, face shields,

* Corresponding author.

E-mail address: zynadhilon@gmail.com (Z. Dhillon).

sanitizers, and PPE. This is a battle for influence and the newest battlefield is vaccine diplomacy. The battle on the Galwan is merely one instance of the Sino-Indo powerplay that has been manifested in multiple forms as this paper will go on to show.

2. Materials and Methods

This paper aims to portray the strategic usage of vaccine diplomacy by India and China in their efforts for regional and global supremacy. The paper begins with an analysis of power and its types as well as the ways in which it manifests itself in the real world. This is followed by an evaluation of vaccine diplomacy as a soft power and what distinguishes it from other forms of soft power. The paper then segues into a comparative analysis on India and China, with comparisons being made across the following metrics: outreach, the pedigree of vaccines, untying diplomatic knots and a Lakshman Rekha. Within the individual analysis for India and China, there is also reference to the ongoing powerplay between India and China outside of vaccine diplomacy. The paper concludes with suggested strategies for the Indian government to employ in order to strengthen the appeal of its vaccine diplomacy. Sources that have been used for this paper include (in order of their citation) Reuters, Center for Strategic and International Studies (CSIS), Journal of Family Medicine and Primary Care, Quartz India, Medium, BBC, The Borgen Project, Times of India (TOI), Zee News, Stimson, Journal of Travel Medicine, Independent, Ministry of External Affairs India, The India Forum, LiveLaw, Al Jazeera, Business Standard, Observer Research Foundation (ORF), South Asia Journal, The Wire, Bridge Beijing, The Conversation, Euro News, The Hindu, Financial Times, World Health Organization, New York Times and NewScientist.

2.1. An analysis of power

Nye posits that “power is the ability to affect others to get the outcomes you want”.² Countries aspire to express control over other sovereign states. This desire to assert dominance manifests itself in one of two ways: hard and soft power. Drawing further from Nye, soft power operates “without coercion or payment” and the usage of “threats or payments” translates into hard power. Soft power materializes as the outreach of the entertainment industry (e.g., the Bollywood industry in India), infrastructure projects undertaken by one nation in another (e.g., the Belt and Road Initiative by China builds infrastructure in Eastern European, Asian, and African countries) amongst others. Hard power looks like economic sanctions (e.g., sanctions preventing Russia from carrying out transactions on SWIFT), assassinations (e.g., the US led assassination of Osama bin Laden) and other forms of economic and military intimidation.

Vaccine diplomacy is “the use of vaccines to increase a country’s diplomatic relations and influence over other nations.”³ Essentially, it is the process of the production of vaccines for export to countries in need of them. However, vaccine diplomacy is a form of strategic humanitarian aid that is directed at countries that can help lift one’s diplomatic reputation, not any mundane country. For its attempts to manipulate diplomatic standing, vaccine diplomacy is, by its very nature, a soft power.

This paper, ergo, stands on the premise that vaccine diplomacy is a form of soft power.

3. Vaccine Diplomacy and Soft Power

A caveat is that vaccine diplomacy is merely one amidst a toolkit of tools that make up soft power. But, during unprecedented times of exigency in the midst of a pandemic, vaccine diplomacy has gained more importance than ever before. Only 40 million doses have been administered so far in Africa, less than 2% of the population.⁴ In such a paucity of vaccines, countries are willing to import vaccines at any cost, even if it means lining up with a particular geopolitical viewpoint. This is unlike other forms of soft power, which can be rejected. For instance, in 2016, Pakistan banned all Indian content from its airwaves but 90% of Pakistan’s vaccines⁵ even then came from India because a necessity such as a vaccine is hard to turn down for fear of retaliation by the public. Vaccines are also a uniquely a relatively non-controversial form of soft power in that people are more likely to criticise the Pakistani government’s decision to allow a Bollywood movie to premiere in Pakistani theatres vis-à-vis the decision to allow Indian vaccines to be administered within the country.

4. In the Larger Picture

For all intents and purposes, this paper looks at medical diplomacy, restricted not only to that of vaccines but also medical supplies in general. This runs the gamut of personal protection equipment (PPE) including but not limited to face shields, disposable gloves and masks and other healthcare equipment. In the current context, this is defined as “COVID bilateralism [where] states are leveraging COVID-19 diplomacy to build new (or renew) strategic links.”⁶

The medical diplomacy muscle has been flexed for a while. Since 1960, Cuba has dispatched more than 135,000 medical staff to all corners of the globe right from helping in the aftermath of an earthquake in Chile to deploying a 165 person army of medical staff to fight the Ebola outbreak.⁷ The Global Fund to Fight AIDS,⁸ Tuberculosis and Malaria also represents one of the efforts of the global community to come together for the cause of humanitarian aid albeit with a strategic motive as the proceeds also help build a reputation for the donor countries.

4.1. India

On January 21, 2021 India began the Vaccine Maitri campaign. Touted as the world's largest vaccine manufacturing hub, India manufactures 60% of the world's vaccines.⁹ This is a reputation cemented by countless interventions to supply vaccines most prominently in the case of the HIV/AIDS epidemic wherein two thirds of the world's AIDS treatment drugs as of 2019 were supplied by India.¹⁰

The campaign name "Vaccine Maitri" epitomizes India's efforts at COVID diplomacy.¹¹ "Maitri" in Hindi translates to friendship; India's outlook towards vaccine diplomacy, at least officially, is that relations with one's neighbours and other countries matter most and ergo, India is willing to lend a helping hand because a friend in need is, apparently, a friend indeed. This willingness to supply vaccines is facilitated by India's vaccine manufacturers which include the Serum Institute of India, Bharat Biotech, Dr Reddy's Laboratories, Biological E Limited, Aurobindo Pharma and Indian Immunologicals.¹² India's commitment to being the "pharmacy hub of the world" follows the ancient Indian philosophical doctrine of *vasudhaiva kutumbakam*, which translates to "the world is one family."¹³ However, this paper further demonstrates both the strategy and the motive behind the philanthropy that India shows at the moment.

4.2. Outreach

While India's efforts today might appear to be rooted in a philosophy that propagates the idea that the world is one, it stems also from strategic philanthropy towards its counterparts. The campaign began with a significant number of Covishield doses to its neighbours Bangladesh, Bhutan, Nepal and Sri Lanka but burgeoned to reach countries from Bhutan to Brazil. But notably, in reaching the four corners of the globe, one of those closest to India were conspicuously not on the list: Pakistan, illustrating India's cupboard love for its donees. While India has supplied COVID vaccines to multiple countries, its next door rival Pakistan was initially not among them.¹⁴ It was only later through COVAX, the United Nations backed initiative to expedite the manufacture and delivery of vaccines, that Pakistan was set to receive 45 million doses from India.¹⁵

The data below documents the amalgam of countries that make up recipients of India's vaccine diplomacy.

What is also worth noticing is that India's donations are split three ways: grants, commercial and COVAX. Vaccines listed under grants have been given as donations; those under commercial have been sold and those under COVAX have been donated albeit indirectly

through the COVAX initiative. Although India's support for its neighbours has been more robust than for the rest of the world, it is noteworthy that India has been global in its outreach.

4.3. Pedigree of Vaccines

A total of 21 firms in India are legally licensed to manufacture vaccines for use on humans. Out of these, 14 are a part of the private sector while 7 are public sector entities.¹⁶ The public sector entities include Haffkine Institute in Mumbai (established in 1899), Central Research Institute (CRI) in Kasauli (1905), Pasteur Institute of India (PII) in Coonoor (1907), and the BCG Vaccine Laboratory (BCGVL) in Chennai (1948).¹⁶ However, the only institutes that have been in the headlines are the Serum Institute of India and Bharat Biotech, both of which fall under the private sector. Even though these are privately managed and not government owned, the government has openly evinced support for these vaccines which makes these vaccines fall under the ambit of the government's vaccine strategy. So much so, that Bharat Biotech's vaccine Covaxin was rushed by the government to emergency approval bypassing clinical phase three trials until later in 2021.¹⁷ This was done to promote India's first indigenously produced vaccine since Covishield was not an entirely domestic vaccine. Notably India's richest have not done much to alleviate the COVID crisis in India let alone towards vaccine diplomacy. Mukesh Ambani, an Indian billionaire, for instance, donated 100 tons of oxygen at a time when the daily demand was 15,000 tons in the state of Maharashtra alone; the oxygen he donated lasted 11 minutes.¹⁸ Moreover, the fact that he was eligible for a tax break owing to his 'donation' speaks a volumes about his 'generosity.'

4.4. Untying diplomatic Knots

378 days and 700 deaths later,¹⁹, the Indian government revoked the contentious Farmer Bills, an attempt to increase corporate influence in the agricultural sector that makes up a majority of employers in India. But this resolution came after a thread of diplomatic knots. The most prominent of these was the row between India and Canada over Prime Minister Trudeau's comments stating that the protests were "concerning."²⁰ The olive branch was a shipment of AstraZeneca vaccines a month after the comments, sweetening the soured relations.

Similarly, relations between Nepal and India had been at a historic low over the Kalapani and Lipulekh territorial dispute. In an attempt to douse the diplomatic fire, India increased shipments to Nepal, trying to vie the nation. Efforts like these were also made in Sri Lanka where China has recently been making inroads. The Hambantota port is located in Sri Lanka. Yet it counterintuitively legally belongs to China. The credits for this go to China's Belt and Road Initiative that has pushed Sri Lanka into debt and what some may call China's rabbit hole of investments. India has been making attempts to counter this.

Table 1:

SI. No.	Country	Grant		Commercial		COVAX		Total Supplies (in lakhs)
		Quantity (in lakhs)	Date of Despatch	Quantity (in lakhs)	Date of Despatch	Quantity (in lakhs)	Date of Despatch	
1	Bangladesh	33.000	(20) 21- Jan-21; (12) 26 March 21; (1) 2 April 2021	150.008	(50) 25-Jan-21; (20) 22-Feb-21; (10) 9 October 2021; 45.006 (01 Dec 2021); (25.002) 07 Dec 2021	97.820	(2.12) 04 Dec 2021; (32.88) 06 Dec 2021; (7.92) 14 Dec 2021; (27.50) 14 Aug 2022; (27.4) 15 Aug 2022	280.828
2	Myanmar	37.000	(15 SII)22- Jan-21; (2 BB) 11-Feb- 21; (10 SII) 9 Oct 21, (5 BB) 22 Dec 2021; (5BB) 28 dec 2021	175.000	(20)11-Feb-21; 1 BB (18 December 2021) ; 67 (27 Dec 2021); 67 (28 Dec 2021); (20 BB) 22 Jan 2022			212.000
3	Nepal	11.120	(10) 21-Jan- 21; (1) 28 March 21; (0.12) 7 October 21	20.000	(10) 20-Feb-21; (10) 9 Oct 21	63.870	(3.48)05/03/2021; (7.255) 28 Nov 2021; (9.72) 30 Nov 2021; (6) 07 Dec 2021; 18.71 (14 Dec 2021); (18.705) 18 Dec	94.990
4	Bhutan	5.500	(1.5) 20- Jan-21; (4) 21 March 21					5.500
5	Maldives	2.000	(1) 20-Jan- 21; (1) 19 Feb-21	1.000	29 March 21	0.120	6 March 21	3.120
6	Mauritius	1.000	22-Jan-21	3.000	(1 SII) 19-Feb-21; (2 BB) 18 March 21			4.000
7	Seychelles	0.500	22-Jan-21					0.500
8	Sri Lanka	5.000	28-Jan-21	5.000	24-Feb-21	2.640	6 March 21	12.640
9	Bahrain	1.000	28-Jan-21					1.000
10	Brazil			40.000	(20) 22-Jan-21; (20) 22 Feb-21			40.000
11	Morocco			70.000	(20) 22-Jan-21; (40)11 Feb-21; (10) 24 Feb-21			70.000
12	Oman	1.000	30 -Jan – 21					1.000

Continued on next page

Table 1 continued

13	Egypt			0.500	30-Jan-21			0.500
14	Algeria			0.500	31-Jan-21			0.500
15	South Africa			10.000	31-Jan-21			10.000
16	Kuwait			2.000	31-Jan-21			2.000
17	UAE			2.000	02-Feb-21			2.000
18	Afghanistan	10.000	(5) 7 Feb2021; (5 BB) 31 Dec 2021			4.680	6 March 21	14.680
19	Barbados	1.000	7 Feb 2021					1.000
20	Dominica	0.700	7 Feb 2021					0.700
21	Mexico			20.300	(8.7) 12 Feb-21; (11.6) 05 Feb 2022			20.300
22	Dominican Republic	0.300	18 Feb 2021	1.100	(0.2)14 Feb-21; (0.9) 16 Jan 2022			1.400
23	Saudi Arabia			45.000	(30)14 Feb-21; (15) 28 March 21			45.000
24	El Salvador			1.100	(0.2)15 Feb-21; (0.9) 09 Jan 2022			1.100
25	Argentina			5.800	16 Feb-21			5.800
26	Serbia			1.500	20 Feb-21			1.500
27	UN Health workers			1.250	(1) 21 Feb-21; (0.25) 04 Dec 2021			1.250
28	Mongolia	1.500	21 Feb-21					1.500
29	Ukraine			5.000	22 Feb-21			5.000
30	Ghana	0.500	4 - Mar - 21	0.020	10 - Mar - 21	26.250	(6)23 Feb-21; (10.62) 12 Dec 2021; (9.9) 03 Feb 2022	27.040

Source: Ministry of External Affairs, India²¹

Not only was vaccine diplomacy used to explore new frontiers in the case of India, it was also used to solidify pre-existing relations such as those with Bangladesh. In the past few years, relations between the two have devolved to a certain extent. For instance, the revocation of a special status for the Muslim majority state of Kashmir in India was “hugely unpopular in Muslim majority Bangladesh. [...] [and thus] India’s reason to respond with alacrity to Bangladesh’s request for vaccines is about not only [...] [the Neighbour First rhetoric] but also”²² the need to promote bonhomie between the two, to substantially improve the country’s image in the eyes of the Bangladeshi populace. This was critical since India and Bangladesh have been more than fair weather friends, their relations deep since India’s helpful intervention in the War of 1971 that liberated Bangladesh. Other bones of contention include as the Citizenship Amendment Act²³ and the Teesta Water Agreement.²⁴, concerns that were both attempted to be pacified with expedited vaccine delivery. It comes as no surprise then that Bangladesh was the first country to receive vaccines under the Vaccine Maitri campaign.

4.5. Lakshman Rekha

In the Indian epic Ramayan, the Lakshman Rekha was a line that goddess Sita was told not to cross i.e., a set of restrictions that limited her activity. In a similar sense, there have been multiple Lakshman Rekhkas that have prevented India’s vaccine diplomacy from acting to its fullest extent.

Primary among these is the concern that propped up regarding the dubious efficacy of the government endorsed, Bharat Biotech produced Covaxin. As aforementioned, the Covaxin was rushed through emergency approval and received authorization for emergency use on January 3, 2021. Due to the absence of critical clinical phase 3 trials, the reputation of the vaccine came under question. The scepticism regarding vaccines in India was compounded when people receiving the vaccine from government clinics were not given the option to choose which vaccine they received. Prominent critics of the Modi government like Saket Gokhale filed a complaint against the country’s drug regulatory body, probing for information around efficacy of the jab while Professor of Microbiology at Christian Medical College, Vellore, Dr Gagandeep Kang famously said she wouldn’t take the Covaxin jab until the efficacy data for the vaccine was out.²⁵

Further compounding the issue was the second wave of COVID that dealt a blow to its efforts at vaccine diplomacy. The Delta variant shook not only the South Asian populace but also the supply chains that made up India’s vaccine diplomacy. As India struggled to grapple with the COVID outbreak, a shortage of vaccines within the country meant that there was no surplus to be exported. This immediately halted the export of vaccines from India to the 101 countries, as per the Ministry of External Affairs, that are recipients of

India’s vaccine diplomacy. As corpses of COVID victims floated in the Ganga, the country suffered through a critical paucity of oxygen made worse by the ever increasing cases due to lack of vaccination further caused by a shortage of vaccines. Data shows that India exported a substantial portion (41%) of its vaccines to other nations as opposed than administering them within India (59%).²⁶ In fact, from January to April 2021, 66 million doses had been exported, “easily enough to vaccinate the whole of Delhi, Mumbai and Kolkata.”²⁷ On April 22, India sent a shipment of vaccines to Paraguay. The same day, India “broke the world record for new infections.”²⁶

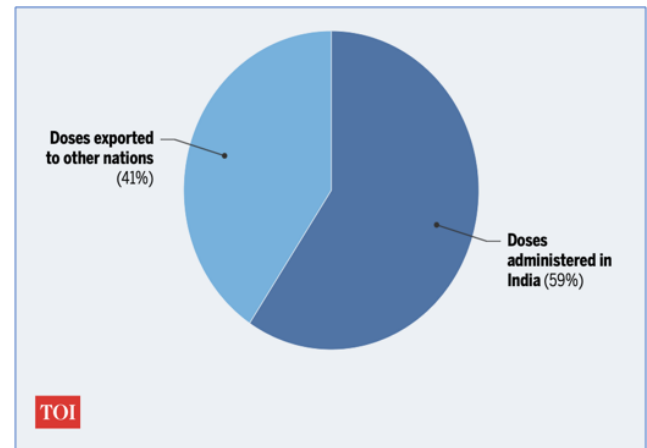


Figure 1: Source: Times of India²⁸

4.6. China

Having been the initial epicentre of COVID cases, China was the subject of a lot of poor publicity for the first few months into the pandemic, what some have called a ‘reputational rollercoaster.’ With accusations of fanning the pandemic by silencing early reports China had been villainized by those victimized by COVID. Beijing, therefore, set out on a massive makeover of its global image, the most important tool in its toolkit being: vaccines and other healthcare related equipment. The campaign was christened with the moniker the Health Silk Road. For centuries, China had been the focal point of trade right from Anatolia to Afghanistan, from Uzbekistan to Europe and beyond. China pulsated with trade and its veins coursed with the Silk Road. Today, China has expanded its reach to that of a Health Silk Road as well, an umbrella term for its vaccine diplomacy.

China’s vaccine diplomacy, like India’s, is rooted in tradition. Though not an exact translation of India’s *vasudhaiva kutumbakam*, China’s Five Basic Principles of Peaceful Coexistence, inspired by *Tianxia*, are an almost counterpart.²⁹ Translating to “all under heaven,” *Tianxia* epitomizes China’s end goal of engaging in diplomatic

efforts across the Health, Trade and Digital Silk Road. Similar to India's efforts to maintain good diplomatic relations with its neighbours, China's efforts, too, are inspired by the need to sustain healthy relations with its neighbours and the world at large.

4.7. Outreach

Unlike India's approach that started small and mushroomed into a global outreach, China set out to go big from the get go. While data for China's vaccine deliveries is not as extensive as the data available by the Indian Ministry of External Affairs, the data for China is drawn from Bridge Beijing, a third party website that has been keeping close track of China's vaccine exports.

To date, 47 countries in Africa have received Chinese vaccines. Of the 186 million doses sold and 80 million doses pledged to Africa, 125 million have been delivered, with 31 million of them having been donations and the rest commercial transactions.

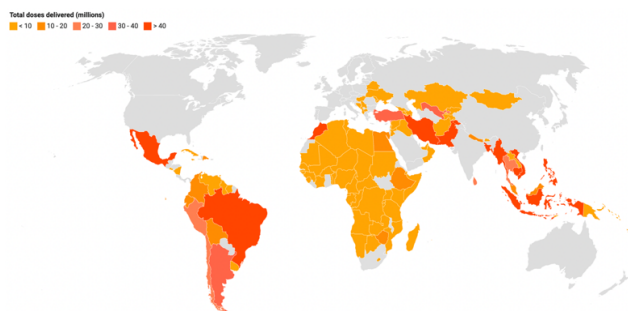


Figure 2: Source:Bridge Beijing³⁰

As per Bridge Beijing: In Latin America, 22 countries have been recipients of Chinese vaccines. While China has donated 12 million doses to Latin America, it has sold 396 million vaccines. The Asian continent has received 890 million doses to date. And finally, penetrating a region that India has not, China has delivered 57 million doses to 10 European countries. The graph above shows the vaccines donated globally, especially to Africa and South America, a continent that China has almost entirely covered with its reach.

Notably, some of these vaccines were donated while the majority of them were sold and not given out of philanthropy. 96% of the vaccines that China distributed as a part of its vaccine campaign, were sold and 99% of PPE was similarly sold and not donated.³¹ While such a trend was also seen with India, the difference between vaccines donated and vaccines sold was not as glaring. In Asia, for instance, India's vaccines were mostly donated and not sold. The question that then arises: is kindness that is sold as effective as that shown voluntarily? The answer lies in the liminal space. The end result is the same

in both cases: a country in need of vaccines receives the doses it needs through a country with a surplus of vaccines. But, diplomacy that is sold across a counter with bills as barter does not induce a feeling of gratitude in the recipient who is made less likely to side with the donor on issues of importance. That is, while China's attempts may be to influence countries to support its worldview, perhaps by selling vaccines to them, the recipients have no obligation to support China since they already played their part by paying China for the vaccines they purchased rather than received.

4.8. Pedigree of Vaccines

Unlike India where the large majority of vaccines were manufactured by private firms, China's vaccines largely come from state-owned enterprises. The Sinopharm, for instance, that was widely exported globally, was manufactured by the eponymous state owned firm. The CoronaVac, too, is manufactured by the firm Sinovac Biotech that is affiliated to the state owned China National Pharmaceutical Group i.e., Sinopharm.³² Importantly, the involvement of state owned enterprises in the development of COVID vaccines translates to a more direct form of vaccine diplomacy where the state intervenes to ensure the production of vaccines that are then used for diplomacy and liaison. This is dissimilar to India's approach, where although the government endorsed the Covaxin, it was not government-produced.

Apart from governmental sources, non-state actors have played a major role in China's efforts at vaccine diplomacy. Jack Ma, China's erstwhile poster boy for wealth generation and philanthropy, donated \$14.4 million to help develop coronavirus vaccines.³³ China's second richest man and Alibaba founder, has earmarked \$5.8 million for two Chinese research organisations.³² Other Chinese firms that have donated funds to coronavirus treatments include smartphone maker Huawei, e-commerce company Tencent Holdings, TikTok owner ByteDance, ride hailing giant DiDi, search engine Baidu and food delivery firm Meituan-Dianping.³² As early into the pandemic as by the end of March, "every other region of the world [also] benefitted from his largesse, including Western Europe, Latin America, Asia and Russia.³² This distinguishes China's non-state actors from India's where the approach of billionaires like Mukesh Ambani was much more local.

5. Untying Diplomatic Knots

The Centre for Strategic and International Studies China Power Project recently developed a Chinese COVID Diplomacy Index (CCDI) which "score[s] countries based on the extent to which China engaged them in medical diplomacy and vaccine diplomacy and how receptive they were to Chinese activities.³⁴" Its findings, according to CCDI, reveal that its vaccine diplomacy has landed

Beijing “goodwill and influence³⁴” in running the gamut middle income countries along China’s periphery including Kyrgyzstan, Cambodia, Mongolia and Indonesia and Comoros, Zimbabwe and the Republic of Congo as well as Serbia to high-income countries like Hungary and Chile.

The CCDI’s findings reveal that Chinese activities “could have improved Beijing’s image and helped strengthen its relationships with countries that sought, or already enjoyed, strong relationships with China.³⁴” The CCDI also evinces that China has to some extent been able to extend the outreach of its foreign policy. “Hungary, for example, blocked EU statements criticizing China in April 2021, just a few weeks after the country purchased millions of doses of Chinese vaccines.³⁴” China has been able to penetrate Hungary to its fullest extent. So much so that Hungarian Prime Minister Viktor Orban himself took the Sinopharm, promulgating it to be safe for use.³⁵

5.1. *Lakshman rekha*

Although a term that would be alien to much of the Chinese population due to its Hindi etymology, Lakshman Rekha represents many of the obstacles that hindered China’s vaccine diplomacy from operating at its fullest extent.

The impact of China’s attempts at global leadership were watered down from the beginning due to claims of spurious efficacy of its vaccines. At least 10 countries have suspended the usage of Chinese vaccines and additionally, recommended pairing them with non-Chinese shots as boosters.³⁶ There were even concerns about China’s vaccines being counterfeit, or fake. Ben Cowling, a professor of epidemiology at the University of Hong Kong posits that there was “still a lot more uncertainty about the effectiveness of inactivated vaccines [the sort that China manufactures] compared to some of the other vaccines being widely used, like the two mRNA vaccines and the AstraZeneca vaccine.³⁷” Although the vaccine was initially in use in Brazil, it was supplanted by the AstraZeneca jab. Sao Paulo officials who had initially stood by estimates of 78% efficacy for the CoronaVac, brought estimates down to only 50.4% on the face of allegations of lack of data transparency.³⁸

In addition to this, China’s outreach has not been omnipotent in its success. Although China made inroads into Hungary, it failed to do so in Paraguay, where amidst a COVID breakout, officials in Paraguay publicly toyed with switching official diplomatic ties from Taiwan to mainland China.³⁹ CSIS also finds that in some cases, China’s vaccine diplomacy may have worsened relations particularly with wealthy democratic countries.

Finally, as aforementioned, China sells its vaccines rather than donating them for the large part. As a result, most of the recipients have been middle income countries. Poorer countries have been left out of its ambit, whereas they are the countries that are most vulnerable to the pandemic. It

is almost a faux sort of diplomacy for it is sold rather than given. Instead of standing as the giving tree, China is reduced to the vendor.

5.2. *Checkmate*

There is no clear winner in the battle. China trumps over India in terms of outreach but India’s outreach donates vaccines while China sells them. The winner might not be clear but the path that India takes now may determine its future.

The 1.32 billion Indians that I am a mere fraction of are affected by India’s vaccine powerplay on an everyday basis. The Indian government’s strategy if it is to outcompete should be manifold.

Firstly, India must inoculate its domestic population. Since the second wave of COVID, India has suffered its reputation devolving as a healthcare provider. With only 4% of the Indian population having taken the booster dose despite being eligible for it, it is imperative for India to vaccinate its population including boosting immunity though booster doses to stay ahead of new variants of COVID popping up every now and then.

Second, India must revamp its vaccination program by requesting its Quad allies—the Quad includes Australia, Japan, the United States and India—to provide it funds necessary for the implementation of a vaccination program that substantially meets domestic needs as well as leaves surplus for exports.

Third, India must begin locally albeit with an aim to go global. It must export vaccines to its neighbours in order to counter Chinese influence especially in the cases of Sri Lanka and Nepal who have recently been drifting towards China in the past few years.

Fourth, in order to penetrate a market that China has hitherto left untouched, India should either drastically subsidize all its vaccines or increase the proportion of vaccines donated for free vis a vis those sold commercially. Although the ratio of vaccines sold to those donated is relatively low in India, India must strive to make the low income developing world its target market, one that China has failed to reach by selling vaccines at high costs.

Fifth, India must attempt to make inroads in countries where the efficacy of China’s vaccines came under question. By providing a more reliable vaccine India can drastically improve its image in countries like Mongolia, Bahrain and Seychelles that failed to provide their people the “COVID-free summer” they promised them due to inoculation by Chinese vaccines.

Sixth, India must try to take pre-emptive action to begin research on diseases predicted to rise with the insurgence of climate change. For instance, diarrhoea, skin diseases and eye infections have shot up in Pakistan as one-third of the country is flooded due to reasons that the country attributes to climate change. A further example is the resurgence of

Japanese encephalitis in Australia as climate change begins to wreak havoc.

5.3. Maximus

In 1956, American virologist Albert B. Sabin met his Soviet counterpart, Mikhail Chumakov.[46] The result of their collaboration, their symbiotic vaccine diplomacy would go on to produce the polio vaccine. Today, as an iron curtain threatens to divide the world yet again, one should perhaps look back to these two warring powers that found common ground in the universal good of healthcare.

COVID-19 is ravaging the world. The Marburg virus is at large in Ghana. An epidemic of monkeypox looms on the American horizon. Climate change is lashing at our shores and bringing in diseases one could not have imaged. As Sylvia Browne predicted, COVID may even resurface. In such unprecedented times, when vaccines are the only antidote, vaccine diplomacy is inevitably here to stay. As long as a pathogen exists, some one or the other will hold a monopoly on its vaccine and vaccines will continue to be served with a shot of diplomacy.

6. Source of Funding

None

7. Conflict of Interest

None.

References

- Ondaatjie A. Sri Lanka leased Hambantota port to China for 99 yrs. Now it wants it back; 2019. Available from: https://www.business-standard.com/article/international/sri-lanka-leased-hambantota-port-to-china-for-99-yrs-now-it-wants-it-back-119112900206_1.html.
- Aziz MH. The COVID-19 Effect: What's Next? Medium; 2020. Available from: <https://ma152.medium.com/the-covid-19-effect-whats-next-9ed755a1c88f>.
- Banerji A. India's Flawed Vaccine Diplomacy. Stimson; 2021. Available from: <https://www.stimson.org/2021/indias-flawed-vaccine-diplomacy/>.
- Bhattacharya A. Pakistan has banned all Indian content from its airwaves; 2016. Available from: <https://qz.com/india/813745/pakistan-has-banned-all-indian-content-from-its-airwaves>.
- Bhattacharya S. Role of vaccine science diplomacy in low middle income countries for eradicating the vaccine-preventable diseases. *J Fam Med Primary Care*. 2021;10(8):2739–44.
- Biswas S. Will Pakistan get Covid vaccines from India?; 2021. Available from: <https://www.bbc.com/news/world-asia-india-55838132>.
- Bose S. The Dynamics of Vaccine Diplomacy in India's Neighbourhood. ORF Online; 2021. Available from: <https://www.orfonline.org/research/the-dynamics-of-vaccine-diplomacy-in-indias-neighbourhood/>.
- Chaudhuri S. Gutting India's Public Sector Vaccine Makers. The India Forum; 2022. Available from: <https://www.theindiaforum.in/article/gutting-indias-public-sector-vaccine-manufacturers>.
- China approves Sinovac Biotech COVID-19 vaccine for general public use; 2021. Available from: [https://www.reuters.com/article/us-health-coronavirus-vaccine-sinovac-idUSKBN2A60AY#:~:text=China%20approves%20Sinovac%20Biotech%20COVID%2D19%20vaccine%20for%20general%20public%20use,-By%20Reuters%20Staff&text=BEIJING%20\(Reuters\)%20%2D%20Sinovac%20Biotech,by%20China's%20medical%20products%20regulator](https://www.reuters.com/article/us-health-coronavirus-vaccine-sinovac-idUSKBN2A60AY#:~:text=China%20approves%20Sinovac%20Biotech%20COVID%2D19%20vaccine%20for%20general%20public%20use,-By%20Reuters%20Staff&text=BEIJING%20(Reuters)%20%2D%20Sinovac%20Biotech,by%20China's%20medical%20products%20regulator).
- COVID Vaccines running out in poorer nations, WHO says. BBC; 2021. Available from: <https://www.bbc.com/news/world-57558401>.
- COVID-19 Updates: Vaccine Supply. Ministry of External Affairs; 2022. Available from: <https://www.mea.gov.in/vaccine-supply.htm>.
- COVID-19 Vaccine Tracker; 2022. Available from: <https://bridgebeijing.com/our-publications/our-publications-1/china-covid-19-vaccines-tracker/>.
- Das KN. 2021.
- Doubts over efficacy of Chinese vaccines stoke anxiety at home and abroad. Available from: <https://www.ft.com/content/c57028b4-573e-4ca4-8266-4d7c0ab72492>.
- Hungary's PM Viktor Orbán vaccinated against COVID with Chinese Sinopharm vaccine; 2021. Available from: <https://www.euronews.com/my-europe/2021/02/28/hungary-s-pm-viktor-orban-vaccinated-against-covid-with-chinese-sinopharm-vaccine#:~:text=%22I%20am%20vaccinated%2C%22%20said,worker%20holding%20a%20Sinopharm%20box..>
- Khan S. India's Role in COVID-19 Vaccine Diplomacy. *J Travel Med*. 2021;28(7):064. doi:2021.
- Klein A. Australia's Japanese encephalitis outbreak blamed on climate change; 2022. Available from: <https://twitter.com/MosquitoPapers/status/1504464328547655687>.
- Latief S. What is citizenship law and why people are protesting against it. TOI; 2019. doi:<https://timesofindia.indiatimes.com/india/what-is-citizenship-amendment-act-and-why-has-it-triggered-protests/articleshow/72759793.cms>.
- Less than 4% Indians got COVID-19 booster dose, among lowest in the world. The Hindu; 2022. Available from: <https://www.thehindu.com/data/data-less-than-4-indians-got-covid-19-booster-dose-among-lowest-in-the-world/article65644980.ece>.
- Lin B. China Is Exploiting the Pandemic to Advance Its Interests, with Mixed Results. 2021; Available from: <https://www.csis.org/analysis/china-exploiting-pandemic-advance-its-interests-mixed-results#:~:text=China%20Is%20Exploiting%20the%20Pandemic%20to%20Advance%20Its%20Interests%2C%20with%20Mixed%20Results,-Photo%3A%20JEKESAI%20NJIKIZANA&text=The%20Covid%2D19%20pandemic%20has,much%2Dneeded%20public%20health%20goods..>
- Jaswal S. The human cost of India's yearlong farmers protests; 2021. Available from: <https://www.aljazeera.com/news/2021/11/30/human-cost-india-farmer-protest-agriculture>.
- WHO. Marburg Virus - Ghana. World Health Organization; 2022. Available from: https://www.who.int/health-topics/marburg-virus-disease#tab=tab_1.
- Monkeypox - United States of America. World Health Organization; 2021. Available from: <https://www.who.int/news-room/fact-sheets/detail/monkeypox>.
- Nye JS. What is Power? Centre for Strategic and International Studies; 2016. Available from: <https://www.csis.org/>.
- Ranade A. India is the world's largest producer of vaccines. So why a shortage today? TOI; 2022. Available from: <https://timesofindia.indiatimes.com/india/india-is-the-worlds-largest-producer-of-vaccines-so-why-a-shortage-today/articleshow/82018420.cms>.
- Sands L. Pakistan floods: One third of country is under water - minister; 2022. Available from: <https://www.carbonbrief.org/daily-brief/pakistan-floods-one-third-of-country-is-under-water-minister/#:~:text=Devastating%20flash%20floods%20have%20left,Rahman%20has%20told%20BBC%20News..>
- Saxena A. Covaxin has not completed Phase 3 Trials: Saket Gokhale Moves Bombay High Court, Seeks Publication of Safety and Efficacy Trial Results; 2021. Available from: <https://www.livelow.in/top-stories/bombay-high-court-covid-19-covaxin-clinical-trial-saket-gokhale-168466>.
- Sellen C. China's big donors are pitching in to deal with the new coronavirus - and not just in their own country. The Conversation; 2020. Available from: <https://theconversation.com/chinas-big->

- donors-are-pitching-in-to-deal-with-the-new-coronavirus-and-not-just-in-their-own-country-134777.
29. Shah H. India exported millions of vaccine doses during its own Covid emergency. Quartz India; 2021. Available from: <https://www.nbcnews.com/news/world/covaxin-india-s-homegrown-covid-vaccine-authorized-world-health-organization-n1283169>.
 30. Sharma N. Where are our India's celebrated billionaires in its time of need? Quartz India; 2022.
 31. Sharma S. Pakistan to receive 45m doses of COVID vaccine from India as a part of global alliance. Available from: <https://www.independent.co.uk/news/world/asia/pakistan-india-vaccine-astrazeneca-b1815111.html>.
 32. Sinovac; Brazil results show Chinese vaccine 50.4% effective. BBC; 2021. Available from: <https://www.bbc.com/news/world-latin-america-55642648>.
 33. Teesta Water Sharing Treaty. South Asia Journal; 2022. Available from: <https://southasiajournal.net/teesta-water-sharing-treaty/#:~:text=According%20to%20the%20agreement%2C%20India's,Bengal%20Chief%20Minister%20Mamata%20Banerjee..>
 34. Thapar K. Won't Take Covaxin Until Efficacy Data Is Made Public': Gagandeep Kang. The Wire; 2021. Available from: <https://thewire.in/government/watch-karan-thapar-gagandeep-kang-bharat-biotech-covaxin-astrazeneca-approval-covid#:~:text=Professor%20Gagandeep%20Kang%20said%20that,done%20on%20the%20wrong%20basis..>
 35. They Relied on Chinese Vaccines. Now They're Battling Outbreaks. Available from: <https://www.nytimes.com/2021/06/22/business/economy/china-vaccines-covid-outbreak.html>.
 36. Trudeau Expresses 'Concern' Over India's Handling of Farmers' Protest; New Delhi Hits Back. The Wire; 2020. Available from: <https://thewire.in/world/canada-expresses-concern-over-indias-handling-farmers-protests-india-hits-back>.
 37. Two thirds of AIDS treatment drugs supplied globally by India. Zee News; 2019. Available from: https://www.business-standard.com/article/pti-stories/two-thirds-of-world-s-aids-treatment-drugs-supplied-by-india-119060400581_1.html.
 38. What is Health Diplomacy? The Borgen Project; 2014. Available from: <https://borgenproject.org/health-diplomacy/#:~:text=But%20what%20is%20health%20diplomacy,those%20who%20need%20it%20most..>
 39. Demeshko Y. Russia could join forces to get people vaccinated. They did before; 2021. Available from: <https://www.washingtonpost.com/outlook/2021/09/01/us-russia-could-join-forces-get-people-vaccinated-they-did-before/>.

Author biography

Zyna Dhillon, Student

Cite this article: Dhillon Z. Vaccines with a shot of diplomacy: An analysis of the dynamics of power play between India and China. *J Manag Res Anal* 2023;10(4):209-218.