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CHINA: FROM SPREAD OF NOVEL CORONAVIRUS TO VACCINE DIPLOMACY – AN APPRAISAL

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ABSTRACT

It has been accepted as a Universal truth that Novel Coronavirus (SARS-Cov-2) originated in Wuhan, China, from where it spread to the whole world causing COVID-19 pandemic. When and how did it occur, whether the virus was developed in lab – these questions remain unresolved? China's resistance to a free and fair investigation about the origin of SARS-Cov-2 further fuels the suspicion about the conspiracy theories.

Unconcerned about the international opprobrium, China's leaders endeavored to exploit this humanitarian crisis by launching their so-called **'Mask Diplomacy'**. On 20 March 2020, the Chinese government announced that it would send more than eighty countries help in the form of masks, testing kits, protective suits, and medical teams. In return for this, Chinese officials demanded public statements praising China's coronavirus response, or even expressions of gratitude to Xi Jinping. In the West, China not only made quick profit through supply of sub-standard and used material but also tried to sow the seeds of discord both between Western countries and within their respective societies by generating doubts about Western governments' capacity to tackle the crisis.

As soon as China developed COVID 19 vaccine, it started supplying it to developing countries of Asia, Africa, Latin America and Caribbean. Though President Xi Jinping pledged that Chinese vaccines would be provided as a 'global public good' but the Chinese vaccines were not meant to be free. Even the same vaccine is priced differently for different countries and two to three times costlier than Indian vaccines. China's **'Vaccine Diplomacy'** is not limited to diplomatic gains only but it is emerging as the major tool for enhancing its **'comprehensive national power'**.

Introduction

Irrespective of its date of origin, whether it was late-December 2019 or early-October 2019, one thing is absolutely clear that Novel Coronavirus or Severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2) originated from Wuhan, located in the Hubei province of central China. Chinese authorities cordoned off the region and implemented mitigation measures nationwide, thereby controlling the local transmission of the virus. But the virus spread like wild fire, engulfing the whole world in to its deadly grip causing COVID-19 pandemic with more than 100 countries reporting cases by April 2020.

In the first two months of the virus outbreak China suppressed information and punished truth-saying doctors. Combined with the initial cover-up and mismanagement, Beijing succeeded in influencing the World Health Organization (WHO) for delaying the declaration of the coronavirus outbreak, thereby leading to a greater worldwide damage.

Without bothering about the international backlash or seeing the situation as a pure setback, the Chinese leadership considered the COVID 19 crisis and its attendant global disarray as a chance to seize new ground in the battle for international influence. As Mao Zedong once said, "There is great chaos under heaven; the situation is excellent."[1] Knowing fully well that it cannot compete with the United States and its allies militarily,

China found COVID 19 pandemic as the heaven sent opportunity where it can show the Western countries in poor light in the eyes of their own public and place itself on a moral high pedestal by offering them a helping hand in the times of need. These are their old tricks being played out of the CCP's regular playbook and some academics prefer to call these as "influence operations".[2] For example, an "honorary fellow" from China's Academy of Military Science wrote in the Hong Kong–based *South China Morning Post* (owned by Jack Ma's PRC-based multinational Alibaba) that the coronavirus had struck a decisive blow to the entire Western world, which was "falling apart."[3] The subtle aim of this kind of writing is to create rifts throughout the West—both between Western countries and within their respective societies—by sowing seeds of discord and generating doubts about Western governments' capacity to tackle the crisis.

Simultaneously, China wanted to show itself as a responsible power, full of altruism and humanitarian concern, ready to help the world in need. China, whose human rights record for its own citizens in Xinjiang, Tibet and Hong Kong is dismal and gets irritated moment it is questioned in any United Nation's forum or by G7 nations, wants to prove itself as protector of humanity. China exploited this humanitarian crisis not only by making quick profit through supply of sub-standard and used medical kits and protective gear but reportedly tried to acquire distressed assets in strategic sectors globally as economies struggled during the COVID-19 pandemic.[4] The European Union, Germany, France, Spain, and Italy have taken measures to counter this move by tightening their foreign investment rules (Of the 27 EU members, 14 already have FDI screening mechanism in place). A false perception was created by China's propaganda machinery that China came to the rescue of Italy with a plane load of medical emergency, at a time many Italians thought "Europe" was abandoning one of EU's founding members? But this was no more than a blip, and the perception was wrong. Germany and France together donated, as opposed to sold, more medical equipment to Italy than China.[5]

As regards providing help to developing countries, on 20 March 2020, the People's Republic of China (PRC) announced that it would send more than eighty countries help in the form of surgical masks, testing kits, protective suits, and medical teams. Chinese official media trumpet these efforts, but aid from China does not necessarily come for free.[6] In return for medical supplies, Chinese officials demanded public statements praising China's coronavirus response, or even expressions of gratitude to Xi Jinping.[7] Supplies also came from Jack Ma's Alibaba Foundation and from telecom giants Tencent and Huawei, raising questions about their underlying motives.[8] As opposed to the more ambivalent and low-profile stance maintained by Chinese leaders since Deng Xiaoping while speaking of their country's international role, Xi Jinping was vociferous to showcase the economic, military, and technological successes of the PRC, and to signify his regional and indeed global ambitions, notably through the launching of his flagship project the Belt and Road Initiative (BRI), immediately after coming to power in 2013. While the economic and financial sustainability of BRI was being questioned and China's 'debt trap diplomacy' inherent in it was getting exposed, COVID 19 pandemic dealt a deadly blow to the repaying capacities of countries participating in the project. Though, the BRI is primarily a physical-infrastructure project but for the last three years, Beijing has already started to shift the BRI's emphasis toward its "softer" and less costly components. The current crisis provided Beijing the opportunity to switch the focus to the 'Health Silk Road', under which Chinese officials urged cooperation on vaccines and antiviral medications, both in the developing world and in Western countries.[9] As the Beijing-led alternative global-health platform slowly emerges, China is reaping the benefits of its rising influence within existing international institutions, specifically the WHO.

There have been pandemics earlier also in the human history but none had so many controversies associated with it as the current COVID 19 pandemic has. ***China's resistance to a free and fair investigation about the origin of SARS-Cov-2 further fuels the suspicion about the conspiracy theories.*** According to a study published by PLOS ONE,

the standard vaccine development, on average, takes 10.71 years from the preclinical phase.[10] In the history of vaccine development, Merck's Mumpsvax vaccine holds the record as it took little less than four years from start (1963) to finish (1967).[11] How COVID 19 vaccine has been developed and launched in less than a year – is it due to developments of modern scientific techniques or certain shortcuts have been adopted in the trial phase – leading to frequently changing statements about the efficiency of vaccines against the Coronavirus and its different mutations. While definite answers may not be found to all these queries in the near future but we need to keep ourselves updated about all the investigations so as to be prepared for any similar eventuality in the future.

Emergence of Novel Coronavirus NOT in December 2019 but as early as October 2019

Researchers at University of California San Diego School of Medicine, carried out a study with colleagues at the University of Arizona and Illumina, Inc., to find out how long could SARS-CoV-2 have circulated in China before it was discovered. They published their report in the March 18, 2021 online issue of *Science Daily*and were able to put an upper limit of mid-October 2019 for when SARS-CoV-2 started circulating in Hubei province.[12] Further, the theory that the first cluster of cases -- and the earliest sequenced SARS-CoV-2 genomes -- were associated with the Huanan Seafood Wholesale Market had also been proven wrong. Officially, the first Covid-19 case was identified on December 8 and linked to Wuhan's Huanan seafood market.[13]

The study authors say the market cluster is unlikely to have marked the beginning of the pandemic because the earliest documented COVID-19 cases had no connection to the market. Regional newspaper reports as also *South Morning China Post* in its 13 March 2020 reported that according to government data, a 55-year-old in Hubei province in China first contracted the coronavirus disease (Covid-19) on November 17, 2019,[14] suggesting the virus was already actively circulating when

Chinese authorities enacted public health measures. In this new study, researchers used molecular clock evolutionary analyses and epidemic epidemiological simulations based on the virus's known biology, such as its transmissibility and other factors.[15]

Recently, researchers of Britain's University of Kent also arrived at the similar conclusions and their research paper was published in the PLOS Pathogens journal.

The study suggested a much earlier and more rapid spread of the contagion than is evident from the confirmed cases. This comes after the scientific paper released on 23 June 2021 revealed that over a dozen of coronavirus test sequences that were obtained during the early months of the pandemic were deleted from an international database used to track the evolution of the virus.[16]Deletion of key data from the international database shows China's further attempt to cover up the origin of Covid-19. Jesse Bloom of the Fred Hutchinson Cancer Research Centre in Seattle recovered deleted sequencing data from early Covid-19 cases in China and the data showed that samples taken from the Huanan market were "not representative" of Sars-CoV-2 as a whole and were a variant of a progenitor sequence circulating earlier, which spread to other parts of China.[17]

Novel Coronavirus: Laboratory Connection

Shortly after the virus's genetic makeup was revealed in early January 2020, rumors began floating that probably the virus was engineered in a lab and it was released either intentionally or accidentally. Kristian Andersen, an infectious disease researcher and his colleagues at the Scripps Research Institute in La Jolla, California carried out a detailed study on the subject. Andersen assembled a team of evolutionary biologists and virologists from several countries to analyze the virus for clues if it could have been human-made, or grown in and accidentally released from a lab. The report was published in 17 March 2020 edition

of *Nature Medicine*. Andersen stated that it was clear "almost overnight" that the virus wasn't human-made because anyone hoping to create a virus would need to work with already known viruses and engineer them to have desired properties. But the SARS-CoV-2 virus has components that differ from those of previously known viruses, so they had to come from an unknown virus or viruses in nature. As regards accidental release from a lab, Andersen's group was of the opinion,"That's a real possibility because researchers in many places are working with coronaviruses that have potential to infect humans".He said, "Stuff comes out of the lab sometimes, almost always accidentally". Andersen says the analysis probably won't lay conspiracy theories to rest.[18]

With the passage of time, evidences started adding up and Nicholas Wade, a noted science writer, editor and author brought out that the virus could have been created in a Chinese lab from which it then escaped. Wuhan is home to China's leading center of coronavirus research where researchers were genetically engineering bat coronaviruses to attack human cells. In an elaborate article in the Bulletin of the Atomic Scientists, Wade said that researchers at the Wuhan Institute of Virology, led by China's leading expert on bat viruses, Shi Zheng-li or "Bat Lady," mounted frequent expeditions to the bat-infested caves of Yunnan in southern China and collected around a hundred different bat coronaviruses. He brought out that much of the work of Chinese virologists was gain-of-function research, designed to make coronaviruses infect human cells and humanized mice and it was performed at the BSL2 safety level lab, where safety conditions were far too lax to contain a virus of unexpected infectiousness like SARS-CoV-2.[19] The researchers were not vaccinated against the viruses under study, and they were working in the minimal safety conditions of a BSL2 laboratory. So escape of a virus would not be at all surprising.[20]

What is Gain-of-Function Research? Gain-of-function research alters an organism or disease in a way that increases the transmissibility and/or virulence of pathogens. Scientists work on gain-of-function projects

to study their potential effects on humans in order to stay ahead of the curve of potential new diseases. But it also carries a risk of an outbreak if not conducted safely.[21]

There are two main theories about the origin of SARS-CoV-2: One is that it jumped naturally from wildlife to people; and the other is that the virus was under study in a lab, from which it escaped. From early on, the Chinese leadership shaped the public and media perceptions in favor of the natural emergence scenario. All records at the Wuhan Institute of Virology were suppressed, its virus databases were closed down and information was released in trickles, designed to misdirect and mislead. They did their best to manipulate the WHO's inquiry into the virus's origins. In February 2021, when commission of the WHO visited China to investigate the origins of the virus, its composition and access were heavily controlled by the Chinese authorities and its members, including Peter Daszak, president of the Eco Health Alliance of New York, kept asserting that lab escape was extremely unlikely.[22]

Wade elucidated that there is long history of viruses escaping from even the best run laboratories - the smallpox virus having escaped three times from labs in England in the 1960's and 1970's, causing 80 cases and 3 deaths. Dangerous viruses have leaked out of labs almost every year since. Coming to more recent times, the SARS1 virus has proved a true escape artist, leaking from laboratories in Singapore, Taiwan, and no less than four times from the Chinese National Institute of Virology in Beijing.[23]

British Professor Angus Dalgleish and Norwegian scientist Dr. Birger Sørensen authored the new 22-page paper report, in which they have claimed that the Chinese scientists took a natural coronavirus 'backbone' found in bats and added a new 'spike' which turned it into deadly and highly transmissible SARS-CoV-2. The Chinese scientists also ***tried to cover their tracks by reverse-engineering the viruses to make it look like they naturally arose from bats***.The duo had "prima facie evidence of retro-engineering in China" for a year but was ignored by

academics and major journals. The study also accuses Chinese labs of "deliberate destruction, concealment or contamination of data."[24]

US President Joe Biden on 26 May ordered intelligence officials to "redouble" efforts to probe the origins of the pandemic, including the possibility of a Chinese laboratory link.[25] Former Secretary of State Mike Pompeo on 29 May said that the Wuhan Institute of Virology (WIV) was engaged in military activity alongside its civilian research - amid renewed scrutiny of the theory that the Covid-19 pandemic emerged from the secretive lab.[26]

Thus, China is coming under increasing pressure over probe into the origins of the Covid-19, even as scientists are demanding more clarity to go into the roots of the global pandemic. ***If the virus did indeed escape from their lab, they deserve the world's censure for a foreseeable accident that has already caused the deaths of four million people.***

China's Vaccine Diplomacy

Vaccines have been an instrument of soft power and have played significant role as part of diplomacy since the Cold War era. The country that was able to manufacture and distribute lifesaving injections or vaccines to other needy countries saw a return on its investment in the form of soft power: prestige, goodwill and perhaps a degree of indebtedness.[27]China has long viewed contributing to global health as an opportunity to build its soft power and it is apparently the first country that moved fastest to realize these gains from the situation arising out of COVID 19 pandemic. China attempted to improve its image through "mask diplomacy" during the first wave of the coronavirus epidemic and in fact "Vaccine diplomacy" can be regarded as a natural extension of the same process.

On 18 May 2020, President Xi Jinping told the World Health Assembly at its virtual gathering that COVID-19 vaccine development and deployment in China, when available, would be made a "global public good" and

he further said, “This will be China’s contribution to ensuring vaccine accessibility and affordability in developing countries.”[28]

According to China’s Foreign Ministry, as of 28 February 2021, China has exported vaccines to 28 countries and provided vaccine assistance to 69 countries and 2 international organizations, and this number is still increasing.[29] Of these, 28 countries are middle-income countries, which have paid for the doses.[30] Though President Xi Jinping pledged that Chinese vaccines would be provided as a ‘global public good’ but that does not necessarily mean that Chinese vaccines would be provided for free. Rather, China does not treat its customers equally. Some countries received vaccines in the form of donations, while others purchased them or were offered a loan to buy them. The selling technique adopted is that China donated its vaccines to countries in quantities of tens of thousands of doses. Provision of a “free sample” often resulted in the recipient country’s interest in the purchase of the vaccine, this time in millions of doses. Interestingly, China’s donations come almost exclusively in the form of vaccines produced by state-owned firm Sinopharm, outshining the other two internationally known Chinese vaccines, CoronaVac (produced by Sinovac) and Conviecia (manufactured by CanSino Biologics).[31]

China’s vaccine supply is not limited to diplomatic gains only but it is emerging as the major tool for enhancing its ‘comprehensive national power’ and its multiple facets are:

- Giving boost to its sagging economy by not only supplying COVID 19 vaccines to needy countries at varied and exorbitant prices but also striking licensing deals to produce vaccines in foreign countries. For example, Indonesia signed an agreement with the Chinese company for 50 million doses of Covid-19 vaccine concentrate that would allow an Indonesian state-owned vaccine maker, PT Bio Farma, to produce Sinovac doses locally.[32] Chinese company Sinopharm also arranged to manufacture its vaccine in the UAE for regional distribution.[33]

- At a time when the US and EU leaders faced high infection rates and death tolls at home and felt the need to inoculate their domestic populations first, world's poorest and most vulnerable people found themselves without vaccine and at great risk of exposure to COVID 19. While many states in the Global North are targeting to achieve widespread vaccination by late 2021, middle and low-income countries may not receive significant vaccine access until 2024.[34] China moved in to plug gaps in the global supply of vaccines.

- China has systematically rolled out vaccines to participants of its BRI and enhanced preferential access to jabs alongside investments in infrastructure and connectivity projects. Reportedly, 72 countries to which China pledged doses, all but two were participants in its BRI.[35] Naming it the 'Health Silk Road', vaccine diplomacy has provided a foothold for China's pharmaceutical industry that has been plagued by scandals and low levels of trust at home and abroad.

- The ability to develop and deliver vaccines to poorer countries would also be a powerful signal of China's rise as a scientific leader in a new post-pandemic global order.[36]

- Beijing's vaccine diplomacy involves propaganda to boost perceptions of China as a generous and responsible power. Chinese media has covered delivery of every vaccine shipment. It follows a standard script - when a cargo plane lands, it is greeted by senior local leaders accompanied by Chinese ambassadors fawning over the vaccine cargo.[37]

- Beijing's moves would also help in countering accusations that the ruling Communist Party should be held responsible for its initial missteps when the coronavirus first emerged in China in December 2019.

China has used COVID 19 vaccine to expand its influence in different regions of the world. Chinese leaders made offers to countries in Southeast Asia, South Asia, Africa, the Middle East, Latin America and the Caribbean.

Southeast Asia

As China rolled out its vaccines, **Indonesia**, the de facto leader of the Association of Southeast Asian Nations (ASEAN), was among the first to receive the Sinovac vaccine. On 06 December 2020, 1.2 million doses arrived, followed by 1.8 million by the end of the month. In January, Indonesia's state-owned Bio Farma started producing the Chinese vaccine with materials sent from China.[38] In total the country has ordered 50 million doses of Sinovac and 60 million doses of China's Sinopharm vaccine. The country spent US$45 million on Chinese vaccines, US$19.7 million on syringes, safety boxes and swab alcohol, and a further US$13.5 million on vaccine refrigerators and carriers.[39] Indonesian President Joko Widodo was also the first major world leader to publicly receive a shot of a Chinese COVID-19 vaccine.[40]

In the rest of the region, shipments were delayed and were much smaller. **Cambodia** and **Laos** received 600,000 and 300,000 doses respectively in early February, while **Thailand** got 200,000 doses two weeks later.[41]

As regards **Malaysia**, the government aims for at least 80 per cent of Malaysia's adult population to be vaccinated by February 2022 to reduce the spread of this virus. According to Malaysia's National Covid-19 Immunization Program Handbook, Malaysia has already placed the order for vaccines and the Chinese vaccines account for only 23 percent of the total share (AstraZeneca -12.8 million, Pfizer-BioNTech – 32 million, Sputnik V – 6.4 million, Sinovac – 12 million, CanSino Biologics – 3.5 million, Johnson & Johnson – order yet to be placed). In fact, on 5 July 2021, one million Pfizer-BioNTech doses arrived in Malaysia from the US government to help ramp up vaccination efforts in the country.[42]

Although Chinese Foreign Minister Wang Yi on Jan 11 promised to provide 300,000 doses to **Myanmar**; instead, the country received its first vaccine shipment of 1.5 million AstraZeneca doses from India on 22 January and Myanmar began COVID-19 vaccinations in next five days after receiving the doses from India. The Indian government also helped Myanmar to sign an agreement with the Serum Institute of India, to buy an additional 30 million doses. Myanmar has a population of about 54 million.[43] China delivered 5,00,000 doses to Myanmar at Yangon on 02 May as a donation from China's military, the People's Liberation Army. But anti-Chinese sentiment has risen dramatically in Myanmar after China repeatedly blocked attempts by the United Nations Security Council to take action against the coup leaders. According to social media posts, millions of people are refusing to take jabs provided by China.[44]Rather,Myanmar is negotiating to buy seven million doses of Russia's Sputnik COVID-19 vaccine.[45]

On 28 February 2021, **the Philippines** received its initial 600,000 doses of Sinovac Biotech's CoronaVac, which were delivered by a Chinese military aircraft ahead of a further 25 million CoronaVac doses due to be delivered in batches this year.[46]The Philippines is the last Southeast Asian country to receive initial vaccine supplies. Clinical trials overseas in Brazil have shown that Sinovac's efficacy rate may be low as 50.4 percent, well below its competitors, which boast rates as high as 90 percent.[47] It is quite telling that even the staunchly pro-Beijing Philippine president and his health secretary did not take a Chinese vaccine in the beginning.[48] Philippines President Rodrigo Duterte received his first dose of Sinopharm's vaccine on 3 May to encourage reluctant Filipinos to get inoculated. Sinopharm's emergency use application in the Philippines is still pending, but the country's food and drugs regulator approved a special provision called "compassionate use" of 10,000 Sinopharm doses to cover Duterte's security detail.[49]However, underlying reason for preferring Sinopharm's over Sinovac's vaccine by the Philippines President could be the better efficacy of the former - Sinopharm's vaccine has an efficacy of 79%[50] whereas Sinovac's vaccine has an efficacy of

51%. One opinion poll showed that less than a third of Filipinos are willing to be vaccinated because of perceptions over potential side effects. Meanwhile, a recent investigation by the Philippines' Senate revealed that the country might be paying more for Chinese vaccines than some of its neighbors.[51]

Initially, **Vietnam** remained an outlier to China's fanfare COVID-19 vaccine diplomacy campaign in Southeast Asia.[52]Confronting the hard edge of Chinese power in South China Sea, Vietnam has long sought to reduce its reliance on China. Vietnam was the first Southeast Asian nation to exclude the Chinese telecoms giant Huawei from any involvement in its 5G infrastructure and it has chosen instead to develop its own homegrown 5G alternative - developed by leading Vietnamese wireless carrier Viettel.[53] Similarly, Vietnam planned to develop its own COVID-19 vaccines, as it would help reduce reliance on imported vaccines and provide a nationalistic boost to its international image. Further, Vietnam's communist leadership has shown great caution in becoming further indebted to a nation that many Vietnamese view with suspicion. However, struggling to contain a stubborn fourth wave of COVID-19 cases, on 4 June, the Vietnamese government reluctantly approved its first Chinese-made vaccine (Sinopharm) for use against COVID-19.The government has not announced any purchases of the vaccine, but unofficial reports indicate that China has pledged to provide Vietnam with 500,000 doses of the Sinopharm vaccine.[54]

On June 3, the Ministry of Health announced that Vietnam had secured commitments by relevant suppliers to provide 120 million doses this year, including shipments from Moderna, Sputnik V, AstraZeneca, Pfizer, and the global COVAX Facility. Thus, it remains clear that Hanoi will not purchase any more Chinese vaccines than is strictly necessary. ***But even then, popular anti-Chinese sentiment is such that there are serious questions as to whether ordinary Vietnamese would agree to receive the Sinopharm jab***.[55]

Singapore received its first shipment of Sinovac vaccines from China in February 2021, but Singaporean regulators have not approved its use.[56] Singapore is largely relying on vaccines from established pharmaceutical companies in the West. It has been using mRNA vaccines, Pfizer BioNTech and Moderna, for inoculating its citizens.[57]

South Asia

India emerged as a first responder to the COVID-19 pandemic in South Asia, through its diplomatic outreach with vaccines. India has given doses to Bhutan, Nepal, Bangladesh, Sri Lanka, the Maldives and Afghanistan as part of its 'Vaccine Maitri' (Friendship) initiative:

Bhutan. It received 5.5 lakhs doses of Covishield manufactured by the Serum Institute of India (SII), Pune on a grant basis in January 2021 (Total 5.5 lakhs).

Nepal. Similarly, 11 lakhs doses were granted to Nepal, in addition to which the country purchased 10 lakhs doses from the institute and also received 3.48 lakhs doses under COVAX in March 2021(Total 24.48 lakhs).

Bangladesh. In January 2021, India gifted Bangladesh some 33 lakhs Covishield vaccine doses. This was followed by a dispatch of another 70 lakhs vaccine doses, this time purchased by Bangladesh, and also from SII (Total 103 lakhs).Bangladesh received the highest volume amongst the 95 countries that have so far received vaccines from India.

Sri Lanka. It received 5 lakhs doses on 28 January 2021 as a grant and it purchased 5 lakhs doses on 24 February and also received2.64 lakhs doses under COVAX in March 2021 (Total 12.64 lakhs).

Maldives. It received a donation of 2 lakhs doses of Covishield from India in two batches –first on 20 January and second on 20 February 2021. A third consignment of 1 lakh doses was supplied under the

Vaccine Purchase Agreement signed on 29 March 2021 between the Maldives's Ministry of Health and SII and 12,000 doses were received under COVAX, earlier on 06 March (Total 3.12 lakhs).

Afghanistan. It was one of the principal beneficiaries of India's vaccine diplomacy in South Asia, having received 5 lakhs doses in February and 4.68 lakhs under COVAX in March 2021(Total 9.68 lakhs).[58]

According to Ministry of External Affairs, Government of India, India has provided a total of 66.3 million COVID 19 vaccines to 95 countries (as of 29 May 2021).[59]In fact, a top Indian diplomat told the United Nations General Assembly in March 2021 that India supplied more Covid-19 vaccine doses globally than it had used to vaccinate its own people.[60]

However, the outbreak of the second wave of the pandemic in India and the resultant decision to halt all vaccine exports created circumstances, wherein neighboring countries have to look for other sources and China was quick to grab that opportunity. However, acquiring Chinese vaccines are not without controversies, not only in terms of price differentials but also because of their hidden agenda of enhancing their strategic footprint in India's immediate neighborhood.

Bangladesh. On 10 May, Chinese Ambassador to Bangladesh Li Jiming said that Bangladesh should not join the "Quad", a US-led initiative, and that Bangladesh's relations with China will "substantially be damaged" if it joins it. He termed Quad "a military alliance aimed against China's resurgence and its relationship with neighboring countries".[61] Later, the Chinese Ambassador gave an explanation in an attempt to lighten the tone of the warning but Chinese Foreign Ministry spokesman Lee Hsien Loong had tried to justify his remarks and said that China never sneers at the internal affairs of any country in South Asia.[62] With this as a backdrop, Bangladesh received 5 lakhs doses of China's Sinopharm COVID-19 vaccine as a gift on 12 May to continue its vaccination drive, which was halted due to shortage of India-made Astra Zeneca vaccine.

Further, Bangladesh sought to procure 40 to 50 million vaccine doses more from China on a commercial basis, along with proposal to co-produce the same in Bangladesh.[63] Since the country was in desperate need of Covid-19 vaccine doses to ensure the continuation of the nationwide inoculation drive, it had approved the emergency use of Russia's Sputnik V in April-end and contracted for four million doses.[64] Bangladesh has also contacted the US, UK and Canada through official channels to secure some 3.5 million doses of the Oxford AstraZeneca vaccine as emergency shipments.[65]

Nepal. On May 26, China announced a grant of 1 million doses of COVID-19 vaccines for Nepal, of which, 800,000 doses arrived at Tribhuwan International Airport on 01 June. The remaining 200,000 doses of the vaccine are being provided to Nepal by the Government of the Tibet Autonomous Region of China.[66]Nepal is set to buy four million doses of the Chinese Sinopharm vaccine under a non-disclosure agreement, as proposed by Sinopharm, to keep the details including the price and delivery date under wraps.[67]

Sri Lanka. China has donated 1.1 million doses of vaccines made by its Sinopharm Group company to Sri Lanka – first shipment of 6 lakhs doses received in March, followed by second shipment of 5 lakhs received on 26 May 2021. The day before, Sri Lankan government agreed to buy 14 million doses of Sinopharm from China.[68]Sri Lanka is not depending for COVID vaccines on China only. It had received 2 lakhs Sputnik V vaccine from Russia in May and is expected to receive a total of 13.5 million doses of the Sputnik V vaccine over the next few months.[69]Sri Lanka on 5 July received the first batch 26,000 doses of Pfizer COVID-19 vaccine, becoming the first South Asian country to get the US-made jab. Sri Lankan Health officials said that the 26,000 doses of the COVID-19 vaccine was the start of the 5 million Pfizer jabs expected by year-end.[70]

Maldives. The Chinese vaccines didn't reach the Maldives until the third week of March and when it did arrive on the night 24 March, the

first batch of Sinopharm vaccines and some syringes were officially handed over next day as donation by the Chinese Ambassador to the Maldives but without disclosing the quantity.[71]Reportedly, the Chinese government had last year announced to donate 1 lakh doses of its homegrown Sinopharm vaccine to the Maldives but now that has been doubled, taking the total number of doses to 2 lakhs.[72]

Bhutan. China sent a consignment of 50,000 doses of Sinopharm vaccines to Bhutan whereas the US and countries like Denmark, Croatia and others have flown in 500,000 doses of Moderna (through COVAX facility) and about 350,000 shots of AstraZeneca vaccines respectively in third week July, to help Bhutan inoculate its population of more than 7500,000 from the covid-19 pandemic.[73] Further, 5,850 doses of Pfizer were received through COVAX facility and the Royal Government of Bhutan has also ordered the purchase of 200,000 doses of Pfizer vaccine, which will arrive towards the end of this year.[74]

Afghanistan. Afghanistan received 700,000 doses of a Covid-19 vaccine from China on 10 June, amid a worsening crisis. Next day, the United States announced some $266 million in additional aid for Afghanistan, primarily for Covid response.[75]

Pakistan. Pakistan has mostly relied on its trusted ally, China, for vaccines. China has donated 1 million doses of Sinopharm vaccines to Pakistan and these were received by end-March 2021.Pakistan has planned to buy 7 million doses of the coronavirus vaccines from China as the nation experienced a sharp rise in COVID-19 infections. Earlier, Pakistan said that it was not planning to buy vaccines anytime soon as it aimed to tackle the COVID-19 challenge through herd immunity and donated vaccines from friendly countries like China.[76]Pakistan has also been able to secure 45 million India-made vaccines through the **Global Alliance for Vaccines and Immunization (GAVI)** for which it signed an agreement in September 2020.[77]

Africa and Middle East

Chinese vaccine efforts also concentrated on the Middle East and North Africa, aiming to strengthen relations. The United Arab Emirates was the first country outside China to approve Sinopharm's vaccine and actively participated in the third phase of the clinical tests. It has also signed a contract to manufacture the vaccine. A new factory in Abu Dhabi will start manufacturing a COVID-19 vaccine from Sinopharm later this year under a joint venture between Sinopharm and Abu Dhabi-based technology company Group 42 (G42). The plant will have a production capacity of 200 million doses a year and the vaccine will be called Hayat-Vax when manufactured in the UAE. The project is an expansion of Chinese diplomacy in the Gulf region and helps the UAE's quest to diversify its economy away from hydrocarbon production.[78]As regards, sub-Saharan Africa, Chinese vaccines are predominantly distributed through the COVAX initiative. China endeavored not to lag behind India and had already provided several hundred thousand Sinopharm doses, for instance to Zimbabwe (400,000 doses donated plus 1.8 million doses purchased), Mozambique (200,000 doses donated) and Morocco (41 million doses purchased).[79]

South and Central America

In South America, China managed to effectively introduce its vaccines to all countries apart from Suriname and French Guyana. Conduct of Sinovac's vaccine trials in Brazil contributed immensely to the enhanced credibility of the Chinese vaccine in the region. Irrespective of the fact that trials showed the vaccine to be of lower efficacy than leading alternatives. The majority of countries accepted donations or ordered Sinovac, with only Argentina and Bolivia choosing to inoculate their populations with Sinopharm. Since Brazil intends to undertake the domestic production of Sinovac, the Chinese position in the region may further be consolidated in the future. However, Paraguay accessed Sinovac only through a donation from neighboring Chile,

as Paraguay is one of 15 remaining countries that diplomatically recognize Taiwan.[80]

In Central America, Mexico acts as one of the largest "Chinese vaccine hubs," offering the whole spectrum of the currently distributed Chinese vaccines. In comparison, however, Indian vaccine diplomacy dominates the region.[81] Moreover, a number of Caribbean and Central American countries recognize Taiwan diplomatically, which complicates the involvement of Chinese vaccines.They have been offered Chinese-made vaccines in return for cutting diplomatic ties with Taiwan, which China insists is part of its territory.[82]

Europe

In the European Union, before a vaccine can be administered, it requires approval by the European Medicines Agency (EMA) to be marked as safe and effective. The European Union is mostly acting as a collective for its approval and purchasing of COVID-19 vaccines. Since, the approval process is time-consuming, national medical regulators may authorize vaccines for emergency use in their respective countries. None of China's vaccine manufacturers had applied for approval to the EMA till as late as end-March.[83] However, the initial slow start of Europe's vaccination drive led some Eastern European countries to consider non-Western alternatives. Hungary became the first country in the European Union to bypass its bulk purchasing mechanisms to secure its own supplies of Sputnik V and Sinopharm.[84]However, neighboring Serbia became the first country in Europe to start inoculating its population with Chinese vaccines in January. The country has so far purchased 1.5 million doses of Sinopharm's vaccine, which makes up the majority of the country's supply, and smaller amounts of Russia's Sputnik V and Pfizer's vaccines.[85]

Some Central and Eastern European countries have been busy asking for the Chinese jabs. Bosnia and Herzegovina, Belarus, Montenegro, North

Macedonia, and Ukraine are believed to be on track to use Chinese vaccines as well. Among the EU member states, after Hungary, Czech has asked Beijing for the delivery of the same vaccine, and Poland has been considering it.[86] The Turkish government ordered 20 million doses of China's Sinovac vaccine. But delayed shipments forced the government to repeatedly revise its vaccination timetable.[87]

Appraisal of China's Vaccine Diplomacy

China has taken a global approach to vaccine diplomacy – largely aligned with its national and strategic interests. However, the success of diplomacy depends on the recipient countries as to how they perceive the offer being made, in terms of short-term benefits as also their long-term national interests. It is known that China is supplying vaccines not only from a commercial perspective but it is also taking into account political incentives. In that context, jabs are used as a tool, to reinforce established relations and capitalize on new opportunities.

The factors that should influence the decision of countries on vaccine acceptance are price, efficacy of the vaccine, the safety or health of its citizens, capacity to deliver a sufficient amount, and finally the long-term political cost of the deal. These aspects are being analyzed in succeeding paragraphs.

Price Differential. China has priced its Sinopharm vaccine differently for different countries as it was revealed by leaders of countries in South Asia. Controversy broke out over reports in Sri Lanka that it had bought Chinese vaccines at a cost higher than Bangladesh. According to Sri Lanka's Daily Mirror newspaper, the country is paying US$15 a dose for the Sinopharm vaccine, whereas Bangladesh is paying US$10 per dose.[88] Interestingly, pricing of the vaccine became an issue in Bangladesh as well. In a news report, Bangladesh newspaper, The Daily Star said that Bangladesh was buying 1.5 crore doses of Sinopharm's Covid-19 vaccine, which had been approved by the cabinet committee on government purchase. The newspaper added: "Immediately after the

meeting, chaired by Finance Minister AHM Mustafa Kamal, a Cabinet Division official told reporters at a briefing that they were purchasing the vaccine at $10 per dose." Once the news reports were out about the pricing and the quantity in Bangladesh, the Finance Ministry had to send out a text message to reporters requesting them not to mention the price in the "greater interest of the country".[89]

China was unhappy with Nepal also, after some media publications disclosed the procurement price of Sinopharm vaccine amounting to around $10 per dose, which Kathmandu was planning to buy from Beijing to tackle the second wave of COVID-19. It was reported that four million doses of the Chinese Sinopharm vaccine would be bought under a non-disclosure agreement by Nepal, as proposed by Sinopharm, to keep the details including the price and delivery date under wraps.[90]

These countries are being charged exorbitant rates by China for the vaccine compared to what they have paid for Indian vaccine. Bangladesh had started its inoculation drive with the Oxford-AstraZeneca vaccine procured from India at US$5 per dose. As things stand,the Chinese vaccine is set to cost Bangladesh double the AstraZeneca shot from the Serum Institute of India. Similarly, Sri Lanka is reported to have purchased one dose of AstraZeneca vaccine for US$ 5.50, which is almost one-third the price being offered by Beijing.[91]

According to nytimes.com, Hungary will buy five million doses of the vaccine from China for a price of EUR 30 per one dose. Based on the contracts made public by the Hungarian government on 11 March 2021, ***Hungary agreed to pay about USD 36 per one dose of the Chinese Sinopharm vaccine.*** The price far surpasses what European Union has agreed to pay for vaccines from Western manufacturers. Interestingly, the Russian Sputnik-V vaccine costs only USD 9.95 per dose. ***That makes the state-owned company's product currently the world's most expensive.***[92]

Efficacy of Chinese Vaccines. The main Chinese-made COVID-19 vaccines being delivered on a large scale are Sinovac's Corona Vac; Sinopharm's BBIBP-CorV; and Convidecia - developed by CanSino Biologics. However, the WHO has granted emergency approval to just two of these vaccines, Sinopharm and Sinovac, which China has supplied and exported to several countries.[93]

Although Chinese vaccine makers were among the earliest in the world to begin clinical trials and self-reported some key results but many have not published complete data in peer-reviewed journals, compared to companies like Pfizer and Moderna. None of China's aforesaid three vaccine candidates released their late-stage clinical trial data. CanSino, with a one-shot vaccine, said that it was 65% effective.[94] Further, other two Chinese vaccines have widely varying efficacy rates in testing abroad - Sinovac's efficacy at preventing symptomatic infection was 51% in Brazil, 67% in Chile, 65% in Indonesia, and 84% in Turkey. Sinopharm's efficacy in preventing symptomatic infection was 78% in UAE, Bahrain, Egypt and Jordan combined.[95] The overall protection provided by these Chinese vaccines is lower than that provided by the seven other vaccines already listed by the WHO.[96]

China's pharmaceutical business practices also have raised concerns. In 2018, it emerged that one of China's biggest vaccine companies falsified data to sell its rabies vaccines. That same year, news broke that a Sinopharm subsidiary, which is behind one of the COVID-19 vaccines now, had made substandard diphtheria vaccines used in mandatory immunizations.[97]

Gao Fu, Head of the China's Centers for Disease Control and Prevention, caused a stir in the month of April when he admitted that China's vaccines—including Corona Vac and Sinopharm— "don't have very high rates of protection". He said that Chinese vaccines were not as effective as hoped and mixing them was among the strategies being considered to boost their effectiveness.[98]

International criticism has focused on the Chinese companies' lack of transparency over results from the final phase of clinical trials.Therefore, some countries have been reluctant to green light Chinese vaccines, despite having received these from China such as Singapore, Poland etc.[99]

Safety. Several countries that administered doses of COVID-19 vaccines developed by Chinese companies have reported a surge in novel coronavirus infections. For instance, Mongolia, Seychelles, Bahrain and Chile that had relied on the easily accessible Chinese COVID-19 vaccine to combat the coronavirus pandemic are now battling a surge in infections. In these countries, about 50 to 68 percent of the population have been fully inoculated with Chinese vaccines, outpacing the United States, according to *'Our World in Data'*, platform compiling vaccination numbers from around the globe.[100]

Israel, which has the second-highest vaccination rate in the world, with shots from Pfizer after Seychelles, reports 4.95 new Covid-19 cases per million. On the other hand, in Seychelles, which relied mostly on Sinopharm, that number is more than 716 cases per million. Mongolia vaccinated 52 percent of its population. However, it recorded 2,400 new infections on 20 June, a quadrupling from a month before.[101]

Though, China's Foreign Ministry claimed that many countries that used Chinese-made vaccines had expressed that they were safe and reliable and had played a good role in their epidemic prevention efforts but the Chinese companies have not released much clinical data to show how their vaccines worked at preventing transmission. Data on breakthrough infections has not been made available, either, though a Sinovac study out of Chile showed that the vaccine was less effective than those from Pfizer-BioNTech and Moderna at preventing infection among vaccinated individuals. According to Nikolai Petrovsky, a professor at the College of Medicine and Public Health at Flinders University in Australia, a major risk with Chinese inoculation is that vaccinated people may have few or no symptoms and still spread the virus to others.[102]

In Indonesia, where a new variant is spreading, more than 350 doctors and health care workers recently came down with Covid-19 despite being fully vaccinated with Sinovac and dozens have been hospitalized according to the officials of the Indonesian Medical Association.[103]

Bahrain and the United Arab Emirates were the first two countries to approve the Sinopharm shot, even before late-stage clinical trial data was released. Since then, there have been extensive reports of vaccinated people falling ill in both countries.[104]

The contrast in infection rates and concerns about the safety and health conditions of own citizens may push developing countries turning to the West for more doses instead of China.

Capacity to Deliver a Sufficient Amount. Chinese vaccine makers – like their Western counterparts – have suffered serious production delays and lack of capacity. In January, Sinovac production levels reached only half of the intended manufacturing capacity, raising doubts as to whether other, less-established Chinese companies will be in a position to meet demand.Concerns have also arisen about whether China's production capacity will be able to keep pace with an ever-expanding list of overseas customers and its domestic vaccination campaign. China needs to prioritize the mass vaccination of its one-billion-strong population, a major feat that may not be accomplished until the middle of next year.[105]

The Turkish government ordered 20 million doses of China's Sinovac vaccine. But delayed shipments forced the government to repeatedly revise its vaccination timetable. Egypt purchased a total of 40 million doses of the vaccine from Sinopharm in January but had received only a tiny percentage of its vaccine order from China by the middle of April. This tension will intensify as China's domestic demand for vaccines increases.[106]

In a number of countries, the overall narrative connected to the Chinese vaccines is that vaccines know no politics. Beijing has also denied

vaccine diplomacy and China has officially declared the vaccine a "global public good". Chinese officials reject any connection between the export of its vaccines and the revamping of its image. ***But there are number of examples to prove that China is leveraging its vaccine diplomacy to enhance different aspects of its comprehensive national power.***

Economic Aspects. Apart from rectifying its global image after it was blamed for the COVID-19 outbreak, Beijing's medical drive also has an important economic aspect. Up until 2019, China played a minimal role in the global pharmaceutical industry, contributing less than 2 percent of medical goods procured by the United Nations. By contrast, India was responsible for 22 percent of such procurement and for 60 percent of global vaccine exports. Now, Chinese COVID-19 vaccines are set to increase the country's global market share and, according to some estimates, bring more than $10bn in sales.[107]

Keeping Its BRI Partners Intact. China is using vaccine diplomacy to further elevate the BRI in bilateral relations. China had also sent masks, medical aid, and expertise to Belt and Road participants in the initial phase of pandemic. Chinese officials said participating BRI nations were a top priority for provision of vaccines, both free and subsidized.[108] Preceding or immediately following many donation announcements, Chinese ambassadors and high-ranking officials including President Xi Jinping had met with counterparts in recipient countries to discuss deepening or expanding bilateral cooperation. More explicitly, Chinese State Councilor and Foreign Minister Wang Yi had stated that the Belt and Road is "a corridor for life-saving supplies." Latin American and Caribbean nations, which were slow to join the BRI, received few vaccine donations from China.[109]

Strengthening Global Support for Its Core National Interests. Another potential motivation for Chinese vaccine donations is ensuring or incentivizing support for Beijing's positions on Taiwan, Tibet, Xinjiang, South China Sea and Hong Kong. In the Caribbean,

after Guyana and Dominica accepted donations they reaffirmed their commitments to the "One China Policy." Similarly, several Muslim-majority countries, such as Egypt and Kyrgyzstan offered support to China's positions on Xinjiang and then received vaccine donations.[110] In the Philippines, where Beijing has donated 600,000 vaccines, a senior diplomat said that China's Foreign Minister, Wang Yi, gave a subtle message to tone down public criticism of growing Chinese assertiveness in the disputed South China Sea. The senior diplomat informed that Wang did not ask for anything in exchange for vaccines, but it was clear he wanted "friendly exchanges in public, like control your megaphone diplomacy a little'. In Turkey, opposition legislators have accused Ankara's leaders of secretly selling out Uyghurs to China in exchange for vaccines after a recent shipment delay. The legislators and the Uyghur diaspora community feared Beijing was trying to win passage of an extradition treaty that could see more Uyghurs deported to China.[111]

Impact of China's Vaccine Diplomacy: Short-Term. Chinese-developed vaccines have been met with significant skepticism by most of the countries in the world, due to questions about their effectiveness, pricing and distribution as well as potential "strings attached". But the vaccine deployment globally had been dominated by wealthier countries. According to Duke University, they had snapped up 5.8 billion of the 8.2 billion doses purchased worldwide.[112] Thus, the developing countries of Asia, Africa, Latin America and Caribbean were left to fend for themselves, when they were caught in the grip of pandemic and COVID-19 cases started rising in their states. Keeping aside all the future worries, the immediate health of their citizens became of prime concern and curbing the pandemic at all costs largely superseded their hesitations over Chinese vaccines, which they readily accepted.

Will China's Vaccine Diplomacy Succeed in Long-Term? In China's quest for global vaccine supremacy, initially its contenders were only India and Russia. However, the outbreak of the second wave of the pandemic in India and the resultant decision to halt all vaccine exports

created circumstances, wherein China was quick to grab the field. On June 2, the foreign ministry said China had provided “more than 350 million doses of vaccines to the international community”, with exports to more than 40 countries.[113]

However, the Western powers soon visualized China’s devious designs and have taken concrete steps towards provision of vaccines for developing nations. India, also having controlled its second wave of pandemic, will likely reassert its diplomatic space in the friendly countries with greater vigor and new solutions. Thus China’s vaccine diplomacy may soon face formidable challenges. Over the coming months, China’s initial advantage in vaccine diplomacy will likely disappear, as other major players step up their contribution toward controlling the pandemic in developing countries:

- The Biden administration, for instance, has reversed his predecessor’s “America First” approach by reinstating assistance to the WHO, as well as doubling its commitment to support the UN’s COVAX scheme.[114] COVID-19 Vaccines Global Access (COVAX) is co-led by GAVI, the Vaccine Alliance, the Coalition for Epidemic Preparedness Innovations (CEPI) and WHO, alongside key delivery partner UNICEF. Its aim is to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world. It represents a global collaboration to fight against vaccine nationalism and widen vaccine availability. Nearly every country in the world has signed on to COVAX’s plan, giving a strong boost to its legitimacy and reinforcing the interdependence inherent in fighting global pandemics. COVAX offers doses for at least 20 per cent of countries’ population[115] i.e. vaccinate around 1.8 billion people.

- While COVAX had raised US$6 billion so far, COVAX’s leaders estimated that it would require at least another US$2 billion to

achieve its goals. US President Joe Biden's recent announcement of a US$4 billion contribution to COVAX should provide a significant boost.[116]The White House planned to release $2 billion immediately and use the second $2 billion as leverage to get other wealthy nations to contribute to the global vaccination effort. In addition, the pharma company Novavax would provide a total of 1.1 billion doses of its vaccine to COVAX.[117]

- Having come under heavy criticism for their vaccine hoarding in recent months, European countries have also moved forward. The commitment by the US was met by an EU announcement that it would be doubling its COVAX funding, adding an additional €500 million and bringing its total contribution to €1 billion. Germany pledged an additional US$1.8 billion to the Access to COVID-19 Tools (ACT) Accelerator, the majority of which will go towards COVAX, the vaccine platform. Japan committed US$79 million to COVAX as well as Unitaid, and Canada pledged US$59 million.[118]

- Some of China's close allies in the region are also not putting all their eggs in one basket. Cambodia invested first in 1 million doses through the UN-backed COVAX scheme, while Indonesia, Malaysia and Thailand have also been actively diversifying their vaccine supply by reaching out to alternative sources in the US, Europe, India and Russia.[119]

- Together with Australia, India and Japan, the US has recently launched a new initiative under the Quadrilateral Security Dialogue (QUAD), committing to supply up to a billion coronavirus vaccine doses across Asia by the end of 2022.[120]

- Russia is another major vaccine manufacturing rival to China and it has shown greater transparency in clinical trials of the Sputnik V vaccines and enjoys relatively higher trust.

- China is no longer the sole provider of COVID 19 vaccine. Rather, China has to compete with various other vaccine producers, particularly the Western companies Pfizer/BioNTech and Moderna producing mRNA vaccines, which have proven to be far more effective than the Chinese vaccines. In the final stage clinical trials, Pfizer/BioNTech and Moderna vaccines were found to be 95 percent and 94.5 percent effective respectively in preventing infections and cause no serious safety concerns.[121]

- Chinese companies are coproducing vaccines in other countries also such as Sinovac in Indonesia and Sinopharm in UAE. For instance, if Sinovac does not produce promising results, or serious side effects or flaws are revealed, Indonesia will face huge financial losses from the number of pre-ordered vaccines. The country will also need to allocate additional financial resources to procure Western COVID-19 vaccines. Indonesia's economy will suffer further if Sinovac is not reliable.[122] The same will be applicable for Sinopharm in UAE.

- Even with the WHO's backing, governments globally appear to be losing confidence in the Sinovac and Sinopharm vaccines as questions have cropped up about their efficacy, especially against the more transmissible Delta variant. In Thailand, authorities announced on 12 July that people who got injected with one dose of Sinovac would get AstraZeneca's jab as their second dose and fully vaccinated health workers would be offered a booster shot of Pfizer or AstraZeneca. The move came after Thailand reported 618 COVID-19 infections and one death among 677,000 medical workers who were fully vaccinated with Sinovac's two-dose regimen. Indonesia's health minister also recently hinted that the country would reduce its reliance on Sinovac shots amid reports that hundreds of health care workers had contracted COVID and 10 had died of the disease after receiving Sinovac jabs. The United Arab Emirates recommended that people

receiving the Sinopharm jabs should get a booster shot of Pfizer six months after they completed their Sinopharm regimen.[123] China itself is reviewing the utilization of mRNA vaccine developed by Pfizer. Its Fosun Pharma is awaiting final approval from regulators and once approved, Fosun could deploy the 100 million doses it acquired from BioNTech last December to the Chinese market by the end of 2021.The approval would also unlock Fosun's capacity to produce 1 billion more BioNTech shots domestically per year, part of the deal Fosun and BioNTech struck in May to make a new joint venture company in China.[124]

All of the above aspects will likely challenge China's ability to leverage vaccine provision in various countries. Thus, what initially looked like a resounding Chinese triumph in "vaccine diplomacy" may turn out to be less of a success than Beijing had hoped for.

India's Future Options to help Friendly Countries in Fighting the Pandemic

India's soft power model is much different than that of China's. India follows the principle of "Vasudhaiv Kutumbkam" in both letter and spirit. India's offer of assistance or help to countries in the immediate neighborhood or in any part of the globe does not have any strings attached or hidden agenda but is purely to strengthen people-to-people relations. Whereas China's soft power initiatives are directed toward economic and political gains and may even amount to economic coercion like its 'debt trap diplomacy' adopted in BRI projects. Though, Chinese leaders denied vaccine diplomacy and they have officially declared the vaccine a "global public good" but they have priced its vaccine differently for different countries and even gone to the extent of showing their displeasure to the leaders of that country on media disclosure of the vaccine price. They have kept the price and delivery schedule under wraps under a non-disclosure agreement with that country. Whereas India's vaccine prices were half to that of China's and are in the open public domain. In

a pre-recorded speech to the UN General Assembly in September 2020, Prime Minister Modi had said, “India’s vaccine production and delivery capacity will be used to help all humanity in fighting this crisis”[125] and truly to his words, Indian government had prepared a well-conceived vaccine distribution plan. India was supplying vaccines to its immediate neighbors and to the global COVAX scheme for poorer countries until it halted exports in April 2021.

According to the government’s estimates, India’s monthly production capacity of COVID 19 vaccines (Covishield and Covaxin combined) could be around 120-130 million doses currently. Whereas based on 2011 census data for India, some 900 to 950 million people are 18 years and above, and therefore eligible for vaccination. Thus, India needs around 292 million doses per month over the next five months to vaccinate all remaining adults by the end of 2021. Though, efforts are being made to produce more than 300 million doses of Russian Sputnik V vaccine a year in India but when the target may be achieved is not clear.[126] The political pressure will prevent the government to export vaccines until the domestic needs are met first. Hence, it may be unrealistic to expect that India will be able to provide vaccines to its neighboring countries in South and Southeast Asia before the year-end.

In Soft power competition, countries do not have to match strength with strength but it is the superiority of ideas, which can win over the hearts and minds of people. By now, it is an established fact that vaccine has not yet proven to be the single most solution to eliminate the COVID 19 pandemic. With COVID cases emerging in many countries even after vaccinating a major proportion of their population, the strategy of social distancing with mask discipline and hand hygiene has to continue for a prolonged period till herd immunity is achieved or this pandemic has been routed out of the earth. Until India regains the position to resupply COVID vaccine to its friendly neighboring countries, it must resort to providing (an economic mix of donation and commercial supply) masks, personal protective equipment (PPE), testing kits and sanitizers

in adequate quantity to cater for the entire population of that country such as Nepal, Bhutan, Sri Lanka, The Maldives and Bangladesh. The Indian embassies in these countries must ensure that the items reach in the remotest corners of that country and people should know that India is concerned about their health and well-being. A wide spread 'Mask Diplomacy' can effectively counter China's controversial 'Vaccine Diplomacy', which has become a cause of concern with the people of these countries on account of: price differential as also being much costlier than Indian vaccine, low reliability, low efficacy, erratic supply and leading to outbreak of exceptionally large number of serious COVID cases among the fully vaccinated people.

India has ramped up its coronavirus vaccine production by diversifying in to different type of vaccines. The government has ordered 300 million doses of vaccine from Indian firm Biological E. The vaccine, named Corbevax, is based on the RBD protein sub-unit platform and is currently undergoing phase 3 clinical trials. Last September, US pharmaceutical firm Novavax signed a deal with the SII, Pune, to produce 2 billion doses of the vaccine – named Covovax in India. The government is preparing to use this vaccine,likely to be launched in September.[127] However; Indian scientists should concentrate on finding a cure for COVID 19 in a shorter time frame. For instance, the drug developed by DRDO (2-deoxy-D-glucose (2-DG) was a good step but much more is required to be achieved in this field so that people world over should not become dependent upon a yearly vaccine or followed up by booster shots. Cure or treatment for COVID 19 should be developed as for any other disease.

Conclusion

It is an historically unparalleled time wherein almost every country of the world has found itself dealing with pandemic challenges. In times of such crises, all countries, whether big or small, are likely to look inward and similar thing happened with India when the second wave of COVID 19 made a devastating impact on the lives of Indian people.

India had delivered 66.3 million vaccines to 95 countries worldwide under its “Vaccine Maitri” program. Finding it difficult to manage the impact of second wave, India banned export of COVID-19 vaccines to all countries. India’s immediate neighbors in South Asia were left to fend for themselves and China was quick to grab this opportunity. China’s vaccines supplies to South Asian countries were not only differently priced but were exorbitant and not open to public scrutiny – a situation akin to their ‘debt trap diplomacy’ of BRI projects. Their vaccines are also the least effective amongst all the other vaccines approved by the WHO. The people of these countries will realize only after sufficient damage would have been done.

To fulfill its overarching ambitions in South China Sea, China will employ all possible means to keep the countries of South Asia, Southeast Asia and in the Indian Ocean region under its influence and Vaccine diplomacy is one of the means. Thus, the member nations of QUAD should come together in meeting the vaccine requirements of these countries on priority, lest they fall prey to China’s **‘Vaccine Trap Diplomacy’**.

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