

INFORMATION, ACCOUNTABILITY, AND EQUITY IN NEPAL'S COVID-19 VACCINATION PROGRAMME

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VACCINE EQUITY, TRANSPARENCY, AND ACCOUNTABILITY IN ASIA:
Realities and Dilemmas

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PART I: INTRODUCTION

1.1. State and trends of COVID-19 and vaccination

Although Nepal was one of the first countries to launch a COVID-19 vaccination drive, the campaign was plagued from the beginning with allegations of corruption, misplaced priorities, unequal treatment, and the continued marginalisation of vulnerable communities. This research explores access to vaccines among four marginalised communities — Chepang, Tharu, Muslims, and squatters (sukumbasi) — along with misinformation and disinformation on vaccine types, vaccine hesitancy, the rural vs urban vaccination divide, community roles in vaccination, and perceptions of the vaccines provided.

The first COVID-19 infection in Nepal was detected on 23 January 2020 (Sharma & Fletcher, 2020). A 32-year-old university student in Wuhan, China had returned to Nepal and tested positive for the coronavirus. By March 2020, when the World Health Organisation (WHO) declared COVID-19 a pandemic (Ganiger & Bijjal, 2022), cases were rapidly increasing in Nepal.

A year later, in January 2021, the Nepal government rolled out its COVID-19 vaccination programme (Poudel, 2021), ahead of many other nations. Nepal received one million doses of the Covishield vaccine (Oxford-AstraZeneca vaccine manufactured in India) from India (Slater, 2021), as part of the latter's 'vaccine diplomacy', which enabled Nepal to begin vaccinations on 27 January 2021 (Nepali Times, 2021). The campaign was guided by the WHO's National Deployment and Vaccination Plan (NDVP), which included regulatory guidance on vaccine access, vaccine selection, equitable distribution, procurement, financing, delivery mechanisms, prioritisation of population groups, vaccine safety surveillance, communication, and media responses.

By this time, the government had formed several task forces and committees across all levels to implement its COVID-19 vaccine allocation plan and its compliance with policies and regulations (ADB, 2021). Most prominent were the High-Level Coordination Committee for the Prevention and Control of COVID-19 and the COVID-19 Coordination and Management Committee (CCMC), chaired by the Deputy Prime Minister and including other cabinet-level ministers. In June 2020, following criticism about overlapping mandates and ineffectiveness, the High-Level Coordination Committee was phased out and the CCMC was allowed to take over as the sole federal-level committee overseeing the government's response to COVID-19 (Pradhan, 2020).

In line with the NDVP, the Nepal government vaccinated frontline healthcare workers first, including doctors, nurses, and health staff. However, contrary to WHO guidelines that stressed the prioritisation of other frontline workers and the elderly, the

government decided to provide journalists, diplomats, and development workers with vaccines next (Shahi, 2021). This was contrary to its Health Ministry's plan to prioritise staffers at international borders, the elderly, prisoners, and frontline workers (Shahi, 2021). It was only months later that the elderly — people over 65 years of age — began to receive vaccines.

Significant logistical hurdles hounded Nepal's early vaccination programme. Conspiracies surrounded the one million Covishield doses donated by India, with some believing that the vaccines were faulty and had been given to Nepal as a 'trial' (Shahi, 2021). When the one million doses ran out, Nepal had trouble acquiring more vaccines. Although it had purchased an additional two million doses of the Covishield vaccine from the Serum Institute of India in February 2021, India imposed restrictions on vaccine exports, citing the increase of cases in India (Shrestha, 2021). Thus, the elderly had to wait for over six months for their second doses due to the unavailability of the vaccine (Shrestha, 2021).

After it became clear that India was unable to provide Nepal with its pre-purchased vaccines, China stepped in and offered its vaccines to Nepal (Xinhua, 2021). Despite similar hesitancy among the populace regarding the effectiveness of the Chinese-made vaccines, the vaccination drive resumed when 800,000 doses of the Chinese-made Sinopharm Vero Cell (BBIBP-CorV) vaccine arrived in Nepal on 29 March 2021 (ANI, 2021). Nepal's then Health Minister called China's gesture to provide the vaccine part of a "health Silk Road" (Bhattarai, 2020), linking it with China's ambitious Belt and Road Initiative (BRI).

Table 1: Vaccines approved for emergency use in Nepal

Vaccine name	Country of manufacture	Deployment
Oxford–AstraZeneca	India (as Covishield), Japan, Sweden	Yes
Janssen	USA	Yes
Sinopharm- BBIP (Vero Cell)	China	Yes
Pfizer-BioNtech	USA	Yes
Moderna	USA	Yes
Covaxin	India	No
Sputnik V	Russia	No
CoronaVac	China	No

Source: <https://covid19.trackvaccines.org/country/nepal>

Nepal has so far approved eight vaccines, five of which have been deployed and three have not been used (see Table 1). As of 4 January 2023, Nepal had received 61,776,770 vaccine doses from various sources, and 53,506,207 had been administered, as shown in the Health Ministry overview in Table 2. The China

COVID-19 Vaccine Tracker¹ shows that as of 22 December 2022, Nepal had received around 19 million doses of Chinese-made vaccines — 11.2 million purchased, and 7.8 million donated by China. These constitute around 31% of the total vaccines received by Nepal, making China its biggest vaccine supplier.

Table 2: COVID-19 overview of Nepal (as of 4 January 2023)

Total population	29,192,480
Total positive cases	1,001,012
Recovered	988,972
Deaths	12,019
Targeted population: ages 12+	23,327,619
First dose	23,108,483
Full dose	22,324,933
Total vaccine doses received	61,776,770
Total vaccine doses administered	53,506,207
Additional doses	79,72,791

Source: <https://covid19.mohp.gov.np/>

As of January 2023, 22,327,169 people, or 76.5% of the total population, had been fully vaccinated (Poudel, 2023). To prepare for a possible resurgence of the virus, the government has also used its vaccine stocks to provide booster doses, for which 7,276,922 doses had been administered as of 4 January 2023.

1.2. Methodology

This research used focus group discussions (FGDs) and expert interviews for primary data collection, and desk research for secondary information.

1.2.1. Expert interviews

The authors interviewed four experts (see Table 3) who worked closely with health institutions, the government, media, and citizens during the height of the COVID-19 pandemic in Nepal.

¹ The China Vaccine Tracker shows all the procurements of vaccines from China by other countries. https://bridgebeijing.com/our-publications/our-publications-1/china-covid-19-vaccines-tracker/#China8217s_Vaccines_in_Asia

Table 3: Interview list

Name	Position and affiliation	Interview method	Interview date
Dr. Sameer Kumar Adhikari	Spokesperson and Chief of Health Emergency Operation Centre, Ministry of Health and Population	Phone	9 Jan 2023
Dr. Sher Bahadur Pun	Chief of the Clinical Research Unit, Sukraraj Tropical Diseases Hospital	Phone	21 Dec 2022
Arjun Bhattarai	NGO Federation Nepal, People's Vaccine Alliance	Phone	13 Dec 2022
Local health journalist (seeking anonymity)	(not disclosed)	In person	11 Dec 2022

1.2.2. Focus group discussions

The authors held FGDs with the aforementioned four marginalised communities, which were selected with geographic and social diversity in mind. We identified the marginalised communities in relation to communities of exclusion — ethnic minorities, religious minorities, and those neglected in terms of state privileges. The Chepang and Tharu are considered ethnic minorities, while Muslims constitute a religious minority in Nepal. Squatters, who often live in settlements along riverbanks, have generally been displaced from elsewhere in the country and live in very poor socio-economic conditions.

The FGDs were conducted face-to-face in the respective communities. The discussion with each group focused on the impacts of COVID-19, vaccine availability, access and choices, information disseminated about the vaccines, and knowledge of vaccine variants. The research also selected a convenience sample from the urban community in the capital, Kathmandu, to contrast with the selected marginalised groups in terms of vaccine equity, access, and information.

All FGDs were carried out between 14 November and 4 December 2022. A total of 42 participants (23 male, 19 female) were involved, with at least two women from each community. Thirty-two participants were from marginalised groups, while nine came from the urban convenience sample. These participants ranged from 17 to 86 years old. All of the interviews were audio recorded with consent.

1.2.2.1. Profiles of marginalised groups

A brief profile of each group is given below.

Chepang are among the most marginalised indigenous groups in Nepal, with an estimated population of 70,000. They are primarily settled in Makwanpur, Chitwan, Dhading, and Gorkha districts. This community has always lived close to forests, in which they hunt, fish, and forage. Over 90% of the Chepang population lives below the poverty line (Lamgade, 2023), making this a vulnerable community, and they generally have little access to healthcare and education. Community members also lack basic

healthcare facilities, depriving them of basic medicines and making the group one of the most vulnerable communities during the COVID-19 pandemic (Chepang, 2020).

Muslims are considered a religious minority, at 4.4% of Nepal's total population (MoFA, n.d.). The majority of Nepali Muslims live in the Terai (the southern plains of Nepal). The constitution of Nepal recognises Muslims as an "at risk" demographic group and has guaranteed them representation in government and public service. Nepali Muslims are among the poorest segments of the population, with comparatively little access to healthcare and education. The Nepal Government's 2015-2020 Health Sector Strategy points out that Muslims have the lowest rate of healthcare utilisation in Nepal (Ashworth & Roux, 2020).

Tharu are considered a marginalised ethnic group in Nepal. They are mostly settled in the Terai, where they were the earliest known settlers, and they are known for their natural resistance against malaria. They are also ardent believers in traditional medicine (Subedi, 2019). Tharu comprise around 6.6% of Nepal's population, making this a significant demographic. However, with low levels of education and high levels of poverty, they are vulnerable to exploitation and do not have proper access to healthcare (BASE, n.d.).

Squatters constitute an urban landless population with permanent shelter or land ownership (Karki, 2002). They are primarily found in urban centres, particularly in Kathmandu. As many as 34,096 families of this vulnerable population have been residing on the banks of the Bagmati river in Kathmandu for several years (TKP, 2022). Over the years, the government has made numerous attempts to evict them, as they reside in informal settlements with makeshift shelters in public areas.

1.3. FGD findings

Chepang community

Dhunibeshi Municipality, Dhading District

Ward:² 6, Sanistar

Households: 8

Population:³ 45

Name	Age	Sex	Occupation	Vaccine status	Vaccine type
Umesh Chepang	30	M	Farmer	Fully vaccinated	Unknown
Maiya Parja	55	F	Homemaker	Fully vaccinated	Vero Cell

² A ward is the smallest unit of local government in Nepal. There are 6,743 wards in Nepal.

³ This is the total population in that community, as provided by community leaders.

Gobinda Parja	20	M	Driver	Fully vaccinated (with booster)	Janssen
Nirmaya Chepang	27	F	Homemaker	Fully vaccinated	Janssen
Sabina Chepang	17	F	Student	Fully vaccinated	Vero Cell
Kancha Chepang	65	M	Farmer	Not vaccinated	N/A
Radhika Chepang	45	F	Homemaker	Not vaccinated	N/A
Sani Kanchi Chepang	Not disclosed	F	Homemaker	Not vaccinated	N/A
Kaushila Chepang	Not disclosed	F	Homemaker	Fully vaccinated	Vero Cell
Chameli Chepang	27	F	Homemaker	Fully vaccinated	Vero Cell

Tharu community

Rapti Municipality, Chitwan District
Ward: 8, Badrani
Households: 16
Population: 60

Name	Age	Sex	Occupation	Vaccine status	Vaccine type
Rajendra Chaudhary	43	M	Farmer	Fully vaccinated	Vero Cell
Sanjay Chaudhary	25	M	Unemployed	Fully vaccinated	Vero Cell
Dhukani Devi Chaudhary	62	F	Farmer	Not vaccinated	N/A
Mina Chaudhary	61	F	Health assistant	Fully vaccinated	Vero Cell
Rajendra Chaudhary	41	M	Security	Fully vaccinated	Vero Cell
Chalai Mahato	64	M	Not disclosed	Not vaccinated	N/A
Sushma Chaudhary	26	F	Homemaker	Fully vaccinated	Vero Cell
Sitaramiya Chaudhary	41	F	Homemaker	Fully vaccinated	Vero Cell

Muslim community

Devchuli Municipality, Nawalpur District
Ward: 16, Rajhar
Households: 75
Population: 200

Name	Age	Sex	Occupation	Vaccine status	Vaccine type
Salima Miya	Not disclosed	F	Homemaker	Not vaccinated	N/A
Rasida Miya	Not disclosed	F	Homemaker	Fully vaccinated	Janssen
Ashan Ansari	32	M	Businessmen	Fully vaccinated	Janssen
Ranjit Shrestha	21	M	High School	Fully vaccinated	Janssen
Abdul Aziz	30	M	Teacher	Fully vaccinated	Vero Cell
Wakil Hamal	33	M	Priest	Fully vaccinated	Janssen
Nasiran Miya	65	F	Homemaker	Fully vaccinated	Vero Cell

Note: One participant was unvaccinated due to pregnancy.

Squatter community

Kathmandu Metropolitan City, Kathmandu District
Ward: 11, Thapathali
Households: 136
Population: 900

Name	Age	Sex	Occupation	Vaccine status	Vaccine type
Januka Pokharel	58	F	Household help	Fully vaccinated	Vero Cell
Gopal Poudel	36	M	Unemployed	Fully vaccinated (with booster)	Vero Cell
Hari Maya Jimba	49	F	Community Leader	Fully vaccinated	Vero Cell
Ganesh Pariyar	50	M	Unemployed	Fully vaccinated	Vero Cell
Balaram KC	Not disclosed	M	Migrant worker	Fully vaccinated (with booster)	Unknown
Aakam Pariyar	27	M	Unemployed	Fully vaccinated	Vero Cell
Lagan Lal Chaudhary	Not disclosed	M	Migrant worker	Fully vaccinated	Unknown
Krishna Bahadur Kami	50	M	Parking collector	Fully vaccinated	Vero Cell

Urban sample

Kathmandu Valley (for convenience sampling)

Name	Age	Sex	Occupation	Vaccine status	Vaccine type
Sudarsan Karki	39	M	Lecturer	Fully vaccinated	AstraZeneca
Prakrit Nepal	36	M	Administrator	Fully vaccinated	Moderna
Mohan Prasad Bajgain	86	M	Retired	Fully vaccinated (with booster)	Pfizer/ AstraZeneca
Ambika Ghimire	75	F	Homemaker	Fully vaccinated (with booster)	AstraZeneca
Ram Ojha	35	M	Journalist	Fully vaccinated (with booster)	AstraZeneca
Bhibhav Rai	30	M	Business owner	Fully vaccinated (with booster)	Vero Cell
Stuti Jha	27	F	NGO worker	Fully vaccinated (with booster)	Vero Cell
Durga Pokharel	45	F	Homemaker	Fully vaccinated	Vero Cell
Tara Khadga	22	F	Student	Fully vaccinated	Vero Cell

PART II: ON INFORMATION ACCESSIBILITY

The Nepal government's primary means of sharing COVID-19-related information has been through a daily update on a special Health Ministry web portal.⁴ In addition to traditional media, the government also employed social media platforms like Facebook,⁵ Twitter,⁶ and YouTube, along with caller ringback tones on mobile phones to disseminate information. The Health Ministry's portal was primarily updated with figures on new cases and ongoing cases, as well as patient recovery data. There was also information on the vaccination rate, but little information on the vaccines provided, and no breakdown of how many people received which vaccines, along with details about the vaccines, doses, manufacturer, and expiry dates. Most of the missing information was eventually incorporated into the daily updates, but until then the public had to rely largely on news reports.

There were issues with the dissemination of information, especially at the beginning of the vaccination programme. Dr. Sher Bahadur Pun, Chief of the Clinical Research Unit at Sukraraj Tropical & Infectious Disease Hospital, admitted that at first, "vaccine distribution was mismanaged" and there was a "lack of effective communication from the government's side" (personal communication, 21 December 2022). Dr. Pun was referring to mismanagement when the vaccines were first rolled out, with mass crowding and people spending long hours in queues (Taylor, 2021).

Members of the four marginalised communities suggested that they were well informed about the vaccination campaign. They reported learning of vaccines from sources like radio, social media, word of mouth, and telecommunications services. However, responses differed slightly by community. None of the homes of the Chepang community members in the FGD had a television, so they got their news from the radio, mobile phones, or through word of mouth. Gobinda Parja, from the Chepang community, reported learning about the vaccine campaign from the caller ringback tone on his mobile phone.

The few who did not learn of the vaccines through the media said their curiosity about the long lines at hospitals and health posts led them to seek out the vaccine. This was most prevalent among the squatter community, as its members live in the heart of Kathmandu and are surrounded by numerous hospitals and vaccination centres. One squatter community member, Gopal Poudel, learned of the vaccination campaign by

⁴ The official Ministry of Health website, covid19.mohp.gov.np, which shares COVID-19 information to the public on a daily basis.

⁵ <https://www.facebook.com/ccmcnepal/>

⁶ <https://twitter.com/mohpnep>

inquiring about the long queues at the Paropakar Maternity Hospital, a stone's throw away from the squatter settlement. However, most squatter community members in the FGD complained that the government had not informed them directly about vaccines, including where they were available.

Participatory research conducted by the NGO Federation of Nepal also concluded that marginalised communities had awareness about the vaccines and other routine immunisations, with primary information gained from health workers, community radios, female community health volunteers, civil society representatives, and local government bodies (NGO Federation of Nepal, 2022). This suggests that the government was fairly successful in its use of various media to encourage its citizens to get vaccinated.

Vaccine hesitancy was prevalent in Nepal. Our research also shows that marginalised communities were quite aware of vaccine availability but unsure about types. This is notable in light of debates concerning the efficacy of certain vaccines, and particularly those from China, including in the local newspaper Nepali Times (Awale & Dhakal, 2022). Health officials in Nepal were of the opinion that the government had failed to adequately explain the different vaccines and their efficacies to the public (Awale, 2021).

During the FGDs, participants expressed doubts about Chinese vaccines and showed preference for other vaccines. We spoke with 10 people from the Chepang community, none of whom knew the name of the vaccine they received — only whether it was administered in one or two doses (though we were able to verify based on their vaccination cards). Without clear information on the types of vaccines being provided and their efficacy, prejudices were thus able to take hold.

"We don't know which vaccine is better, but everyone says that the American vaccine is the best. Unfortunately, we didn't get it", said Sitaramiya Chaudhary, one of the Tharu participants, who received Vero Cell. Another participant, Sabina Chepang, from the Chepang community, also said that she would have preferred to take an American vaccine. "They were unavailable, so I had to take Vero Cell", she said. Most of the marginalised community members believed that there were two kinds of vaccines — Chinese and American. They were mostly hesitant to take the Chinese vaccine but ultimately took whatever was available. These responses are emblematic of the lack of information from the Nepal government about different vaccines.

Chinese vaccines were also widely mocked on social media.⁷ For example, one user posted on Facebook, "I took the Chinese vaccines and now I feel they were fake as they had no effect". While most Nepalis were aware of the vaccine campaign and aware that they should get vaccinated, they did not know about the different types of vaccines. This resulted in communities assuming the efficacy of the different vaccines based on pre-existing prejudices.

⁷ Searching "चाइनिज भ्याक्सिन" (Nepali for 'Chinese vaccine') on Facebook results in hundreds of posts questioning and mocking the Chinese vaccine.

Perceptions of the Chinese vaccine were largely due to a prevailing sentiment that Chinese-made products are inferior in quality and not as trustworthy as ones manufactured elsewhere. However, many FGD participants said they also preferred the Janssen vaccine because it was a single-shot vaccine and was thus logistically easier to receive. Dr. Sher Bahadur Pun said "people prioritised any vaccine other than the Chinese ones", and that people were mostly looking for "Pfizer or Covishield (AstraZeneca) and also the one dose of Janssen" (personal communication, 21 December 2022).

Some participants were better informed. For instance, Abdul Aziz, from the Muslim community, said that he waited and took the Janssen vaccine when it was available. "I took the single dose American vaccine because I didn't want to take a second dose. I was worried about the uncertainty of getting a second dose as people had to wait a long time for their second jabs."

Although the Nepal government strived to provide accurate information to the public through various media, there was misinformation. Ironically, some came from the then-current Prime Minister, who was prone to speaking off the cuff, even on serious matters. Though not speaking in his formal capacity, the Prime Minister saying such things led to misinformation circulating. For instance, he once remarked that COVID-19 was similar to a cold and that chewing guava leaves and drinking hot water with turmeric would act as a cure (Pradhan & Poudel, 2022). Body and Data, a civil society organisation that works in the field of digital rights, put together a list of common myths, like one that drinking cow urine or consuming turmeric and other spices would cure the coronavirus (Gauchan, 2020). Body and Data called these myths "deeply rooted with the feeling of 'ethnocentrism' that makes people proud of their heritage and culture at times of crisis".

Once the vaccines were deployed, more misinformation arose. A video purported to show people who had developed magnetic properties attracting metals after getting vaccinated (Sidhakura Online, 2021). There were also doubts about whether the Chinese Vero Cell vaccine had been approved by the WHO. According to Nepal Fact Check, another fact checking organisation, the Nepal government only deployed the vaccine after the WHO approved it for public use (Shrestha, 2021).

Among the marginalised groups, misinformation contributed to some vaccine hesitancy. Many members raised questions over the efficacy of the vaccine and whether it actually did what it was supposed to. Some expressed doubts over whether it could lead to impotence, weakness, or other diseases like dengue. A survey conducted on vaccine hesitancy by the Center for Research on Education Health and Social Science (CREHSS) concluded that 62% of respondents had heard negative information about the COVID-19 vaccine in Nepal (ADRA Nepal and CREHSS, 2021). Among them was FGD participant Chalai Mahato, of the Tharu community, who has existing health issues. He refused to take the vaccine because he was told it would make him frail. "I am a weak person and if I got vaccinated, I would get weaker. I saw that people who got vaccinated had fever. That is why I didn't take the vaccine", he said.

As these negative and baseless messages prevailed, the government saw an urgent need to control misinformation. The Epidemiology and Disease Control Division (EDCD) at the Health Ministry set up a call centre (WHO, 2021). The government and Nepal Police took strict measures to control misinformation, making arrests and taking legal action against those purportedly spreading fake information (Republica, 2020). As the vaccination campaign progressed and the pandemic subsided, the misinformation also slowly died down.

PART III: ON ENSURING EQUITY

Initially, Nepal faced difficulties procuring vaccines from countries manufacturing them in the West. India and China, however, managed to supply much of the developing world, including Nepal, with their own vaccines. Once the vaccine supply became steady, with Nepal securing consignments from various donor countries and alliances like COVAX, Nepal authorities managed to deploy the vaccines, but there were significant equity issues.

Early in the vaccination drive, the government's decision to vaccinate journalists, diplomats, and aid workers ahead of the elderly, those with comorbidities, and other frontline workers was heavily criticised (Rai & Sharma, 2021). Many believed that the government was using the vaccines to curry favour with donor agencies and journalists by offering them the jab first.

Throughout Nepal's vaccination campaign, there were numerous hiccups with vaccine access, some of which can be attributed to the Nepal government, while others were beyond its control. For instance, the government was left without enough vaccines to provide second doses after India, citing a domestic shortage, was unable to export the vaccines for which Nepal had already paid.

From the beginning, Nepal had little control over the type of vaccines that it could deploy as its procurement depended on donors and neighbouring countries (Poudel, 2021). Since vaccines were in short supply, Nepal had no choice but to accept whatever vaccine was available. Nepali citizens, in turn, had little autonomy in deciding which vaccine to get (Hyoilmo, 2021). Those who might have preferred an RNA vaccine as opposed to an inactivated virus vaccine simply had to accept whatever vaccine the government was providing according to its priority (MoHP, 2021).

3.1. The rural-urban divide

Although Nepal's urban population is just around 20% of the country's total (World Bank, 2021), city dwellers had faster and easier access to vaccines, as the drive began in the cities, with a large focus on Kathmandu. Rural residents either had to go to cities to get vaccinated, which was often not possible due to COVID-19-related travel restrictions, or wait their turn in their villages, which took months. Compared to the urban convenience sample, participants from each of the four marginalised groups got their vaccines much later. This was not just due to their marginalised position in Nepali society, but also due to the fact that they live primarily in rural areas. Comparing the vaccination dates, the marginalised communities did not begin to receive their vaccines until at least five months after the urban community in Kathmandu did. This discrepancy only increased the already wide gap between rural and urban populations in terms of access to services.

Even the COVID-19 Crisis Management Ordinance (CMO), a legal instrument passed by the President to deal with the pandemic, was unable to close these gaps. Introduced in May 2021, the ordinance entitled the government to take charge of any resource, even private hospitals and entities, in order to curb the pandemic (TKP, 2021). However, an opinion from OpinioJuris claims that the law failed to “adequately identify and prioritize marginalized and/or high-risk groups [...] in accessing the health goods and services” (Shrestha, 2021). Health Ministry Spokesperson Dr. Sameer Kumar Adhikari claims the government decided to “focus on urban areas” in consideration of their population destiny and potential for spread of the virus (personal communication, 9 January 2023). This was clearly seen when comparing the urban convenience sample with the marginalised communities.

Marginalised communities like the Chepang, Tharu, and Muslims live on the outskirts of settlements and away from villages and cities, so even among rural residents they had the most difficulty accessing vaccines. For instance, it took Chepang community members four hours to walk to the nearest health post giving out vaccinations, said Umesh Chepang, one of the participants in the research. The Muslim and Tharu communities had comparatively better access to vaccination centres, perhaps because they live in the plains; Chepang community members live in the hills, where road access is more sparse. Meanwhile, the squatter community, which lives in urban settings, had better access to vaccination centres but faced long hours in queues alongside the rest of the urban population, according to the squatter participants interviewed.

Despite these challenges, results show that a high percentage of the four marginalised communities were vaccinated. Data obtained from the Dhading District Administration Office shows the district had 25,000 Chepang community members in the district, of whom 70% had received a full dose of a COVID-19 vaccine, as of 14 November 2022. Krishna Prasad Lamsal, the Chief District Officer of Dhading, who is also chairperson of the district’s Covid Management Committee, said that the Chepang community was “initially reluctant to get vaccinated but eventually came around” (K.P Lamsal, personal communication, 14 November 2022). Mina Chaudhari, a local female community health worker, said that around 80% of the Tharu community were fully vaccinated with the Vero Cell vaccine. At the same time, Min Kumar Rana Magar, chairperson of Association of Oppressed Squatters, said over 90% of families in the squatter community had received the Vero Cell vaccine. FGD participants from the Muslim community said that 85% of their community was fully vaccinated, while the remaining 15% consisted of pregnant women and elderly people who did not get vaccinated due to fear of side effects. While these marginalised communities had a substantial vaccination percentage, results show that they were left behind compared to the urban community (used for convenience sampling), which was fully vaccinated.

The rural-urban divide was further widened by the digital divide. While the Nepal government put information on its website and its social media channels, many rural residents without Internet access were left out (Kharel, 2021). Although mobile phones and phone service are generally accessible, cellular data access is still spotty in rural areas. No FGD members from the Chepang community had access to the

Internet, while a handful of young Tharu and Muslim community members had minimal access. Only the urban convenience sample participants had broadband Internet access.

A few instances of vaccine hesitancy, pregnancy, and other existing health conditions were also witnessed in the four communities. The vaccinated population in the Muslim and Tharu communities had all received the Vero Cell vaccine, and a majority of the squatter community had as well. The Chepang population had received a mixture of Janssen and Vero Cell. Compared to these, the urban sample seems to have gotten access to vaccines from a more diverse selection of manufacturers, including AstraZeneca, Pfizer, and Moderna. Although queues were long, most urban residents were able to get vaccinated early in the campaign. Information and vaccine infrastructure were also more focused on urban areas, with more vaccine centres, more manpower, and more vaccine choices. Kathmandu Valley alone had 32 vaccination centres (Nepalnews, 2021), which included hospitals, schools and ward offices. This illustrated the urban-rural divide in Nepal’s vaccine administration (Poudel, 2021).

3.2. Efforts to increase equity

In marginalised communities like the Chepang and Muslims, communal and religious leaders played a crucial role in getting their communities vaccinated. A community leader from the Muslim community, Wakil, personally took 80 students from a madrasa (a Muslim school) to the local vaccination centre. In the Chepang community, a local representative took a handful of people, including some of the FGD participants, to another village to get vaccinated before their village’s turn came. UNICEF told the story of Lalita Gupta from Saptari District, a healthcare worker who, after receiving her shots, started informing her community about vaccine effectiveness and encouraging everyone to get inoculated (UNICEF Nepal, 2021). Similar efforts took place elsewhere in marginalised communities.

Civil society efforts to ensure vaccine equity that were specifically focused on marginalised populations were rare. In the early stages of the vaccination drive, some civil society organisations came together and appealed to the government for transparency and prioritisation of the vaccines for marginalised communities (TKP, 2020). Some even urged China to provide additional doses of vaccines, calling the northern neighbour “not only a neighbor but a good friend to Nepal, a relationship attested particularly in times of crisis” (Republica, 2021). Despite the widespread scepticism of Chinese-made vaccines, civil society still considered these vaccines viable, especially at a time when no others were forthcoming.

Although there were a few notable gestures from civil society, they were not substantial. The NGO Federation of Nepal has stated that civil society could have played a major role in supporting local governments and empowering marginalised communities to access COVID-19 vaccines (NGO Federation Nepal, 2022).

Even though most marginalised communities eventually received vaccines, it took the government a long time to administer them. An editorial in The Kathmandu Post wrote that the government lacked proper awareness and had “forgotten” the marginalised population and failed to vaccinate them (TKP, 2021). It reported that the Musahars, one of the poorest and most marginalised communities in Nepal, were largely unaware of the vaccination drive. Only 20% of the community’s 119 households were vaccinated as of February 2022 (Puri, 2021), a year after the national vaccination drive started.

PART IV: ON ENSURING SELF-RELIANCE, TRANSPARENCY, AND ACCOUNTABILITY

Nepal relied largely on the goodwill of donors and multinational organisations. Because Nepal does not produce any vaccines on its own and has very little sway in terms of global geopolitics, the country was forced to accept whatever was given. Self-reliance also remains unlikely for Nepal, which is heavily dependent on its two neighbours, India and China, which were both crucial vaccine partners for Nepal. India provided at least 11 vaccine consignments, and China over 14 consignments, as recorded from various sources. Together, the two neighbours contributed over 50% of all vaccines acquired by Nepal (see Table 4).

The government was not transparent about disseminating information on procurement and spending on vaccines. Most of the information came from local media. National dailies like Kantipur, The Kathmandu Post, Nagarik, Swasthakhbar, and Naya Patrika, together with online media like OnlineKhabar and Setopati, broke stories about corruption in procurement and acted as watchdogs (Pradhan, 2020).

For instance, the media exposed the wrongdoing of Omni Group, an influential business house, in the procurement of medical equipment like non contact thermometers, N95 masks, testing kits, and Personal Protective Equipment (PPE) essential during the COVID-19 pandemic. The Department of Health Services, mandated to carry out procurement, was bypassed as the high-level CCMC took charge of selecting a bidder. The national media reported the irregularities in the procurement process, including the fact that Omni’s substandard products cost three times the market price (Sharma, 2020).

There was little transparency regarding the purchase of certain vaccines from manufacturing countries. For instance, Nepal signed a non-disclosure agreement with China regarding the price at which Nepal purchased 10 million doses of the Sinopharm vaccine (TKP, 2021). China was selling the vaccine to Nepal at USD10 per dose, a low price that it did not want to disclose publicly, according to media reports (Bose, 2021). At the same time, the Nepal government appeared uninterested in disseminating information about the procurement due to issues with price, diplomatic hurdles, and internal criticism. There were also issues regarding vaccine procurement from India. As mentioned earlier, although Nepal had already paid for two million doses of the Covishield vaccine manufactured by the Serum Institute of India, India refused to dispatch its remaining one million doses, citing rising domestic demand (Neupane, 2021). While the government had paid for two million vaccines at USD4 per dose, the local agent for the manufacturing company demanded a 10% commission and lobbied for Nepal to pay USD6 per dose (Budhathoki & Tripathi, 2021). The procurement was halted after the details of the local agent’s corrupt lobbying emerged in the media (Subedi, 2021).

Arjun Bhattarai, of NGO Federation of Nepal, said that vaccine procurement was not a transparent process as there was no clarity on which consignments were received as loans and which ones as grants (personal communication, 13 December 2022).

The government was active in procuring vaccines using its diplomatic channels, and the Ministry of Foreign Affairs sent diplomatic cables to major vaccine producing countries — India, China, Russia, the UK, and the US. The Nepal Embassy in India was active in the procurement process, meeting senior government officials as well as vaccine manufacturers like the Serum Institute of India and Bharat Biotech. However, in the case of China, the Nepal embassy in Beijing was completely sidelined from the procurement processes by the Nepal government, raising questions about the transparency of the government's procurements. "The Nepali Embassy in Beijing was neither engaged in any effort to procure vaccines from China nor was it asked to connect with the Chinese vaccine producers" reads a report by the think tank Institute for Integrated Development Studies (IIDS, 2021). The Nepal government had bypassed its own diplomatic mechanisms in order to deal with its northern neighbour.

Citing the Right to Information Act, various international organisations like the International Commission of Jurists (ICJ) demanded access to information held by public bodies regarding the COVID-19 vaccine procurement process, including contracts between the government and pharmaceutical companies. ICJ called the Nepal government's response to COVID-19 a failure, asking it to "widely publish a COVID-19 vaccine acquisition and distribution plan, detailing concrete measures to ensure non-discriminatory access to COVID-19 vaccines to all inhabitants of Nepal" (ICJ, 2021).

However, the government ignored recommendations made by international organisations, failing to make the procurement process more transparent. A health journalist opined that the "government had hidden the exact breakdown of the vaccine consignments and also the vaccine expiry data" (Anonymous, personal communication, 22 December 2022). With no official data on vaccine procurement provided by the government, civil society and NGOs consolidated their data from various sources like diplomatic releases and newspapers to make the numbers more transparent, accessible, and understandable. Vaccine figures gathered from various sources show the recorded number of vaccine consignments on various dates together with their purchase and grant status (see Table 4). Among them are many countries which opted to grant Nepal vaccine doses, together with COVAX and other entities like the Red Cross. Of Nepal's total procurement of 61,776,770 doses, this table only accounts for 50,182,000 vaccine doses; the sources and quantities cannot be identified for another 11,594,770 doses.

Table 4: Vaccine procurement details

SN	Vaccine name	Quantity	From	Type	Date	Remarks
1	Covishield	1,000,000	India	Grant	21 Jan 2021	
2	Covishield	1,000,000	India	Bought	22 Feb 2021	
3	Covishield	348,000	COVAX	Grant	07 Mar 2021	
4	Covishield	100,000	Indian Army	Grant	28 Mar 2021	Nepal Army
5	Vero Cell	800,000	China	Grant	29 Mar 2021	
6	Vero Cell	1,000,000	China	Grant	01 Jun 2021	
7	Vero Cell	4,000,000	China	Bought	09 Jun 2021 to 30 Jun 2021	
8	J&J	1,538,850	US-COVAX	Grant	12 Jul 2021	
9	AstraZeneca	230,000	Bhutan	Grant	07 Aug 2021	
10	AstraZeneca	1,614,740	Japan-COVAX	Grant	07 Aug 2021 to 23 Aug 2021	
11	Vero Cell	1,600,000	China	Bought	18 Aug 2021; 19 Aug 2021	
12	AstraZeneca	131,120	UK	Grant	26 Aug 2021	
13	Vero Cell	4,400,000	China	Bought	17 Sep 2021	
14	Vero Cell	100,000	China-Red Cross	Grant	24 Sep 2021	Red Cross
15	Covishield	1,000,000	India	Bought	09 Sep 2021	
16	Pfizer	100,620	COVAX	Grant	25 Oct 2021	
17	Vero Cell	1,020,000	COVAX	Cost sharing	27 Oct 2021	
18	AstraZeneca	201,600	Maldives	Grant	31 Oct 2021	
19	Vero Cell	1,600,000	China	Grant	03 Nov 2021	
20	Vero Cell	300,000	China-PLA	Grant	05 Nov 2021	Nepal Army
21	AstraZeneca	300,048	COVAX	Grant	10 Nov 2021	
22	AstraZeneca	100,044	Switzerland-COVAX	Grant	10 Nov 2021	
23	Vero Cell	1,058,892	COVAX	Cost sharing	11 Nov 2021	

24	Vero Cell	411,768	COVAX	Cost sharing	15 Nov 2021	
25	Vero Cell	1,058,940	COVAX	Cost sharing	15 Nov 2021	
26	AstraZeneca	368,100	Canada	Grant	16 Nov 2021	
27	Covishield	725,500	COVAX	Grant	29 Nov 2021	
28	Covishield	972,000	COVAX	Grant	01 Dec 2021	
29	Moderna	188,400	COVAX	Cost sharing	03 Dec 2021	
30	Covishield	600,000	COVAX	Cost sharing	08 Dec 2021	
31	Moderna	1,497,200	COVAX	Cost sharing	09 Dec 2021	
32	Moderna	1,965,600	Germany-COVAX	Grant	12 Dec 2021	
33	Covishield	1,871,000	COVAX	Cost sharing	15 Dec 2021	
34	J&J	2,176,650	Germany-COVAX	Grant	16 Dec 2021	
35	Vero Cell	1,201,887	COVAX	Cost sharing	20 Dec 2021	
36	Covishield	1,870,500	COVAX	Cost sharing	20 Dec 2021	
37	Pfizer	664,560	US-COVAX	Grant	24 Dec 2021	
38	Vero Cell	1,184,913	COVAX	Cost sharing	11 Jan 2022	
39	Moderna	2,339,200	COVAX	Cost sharing	31 Jan 2022; 01 Feb 2022	
40	Moderna	1,660,800	COVAX	Cost sharing	25 Jan 2022	
41	AstraZeneca	685,000	France	Grant	26 Jan 2022	
42	AstraZeneca	663,000	Italy	Grant	26 Jan 2022	
43	AstraZeneca	862,080	COVAX	Grant	07 Feb 2022	
44	Covaxin	100,000	Indian Army	Grant	24 Feb 2022	
45	Pfizer	2,299,200	COVAX	Grant	03 Jul 2022	
	Total	50,182,000	Total Chinese Vaccine: 19,336,400	Other Vaccines: 30,845,600		

Note: compiled from the Nepal Institute of Policy Research and various newspaper sources (as of July 2022), <https://iids.org.np/images/publications/ac801fe80c6b6c823ee05edd14eba148.pdf>

Once the pandemic subsided, Nepal, perhaps learning from the problems it had faced, announced it would facilitate the setting up of vaccine manufacturing plants, for which several local pharmaceutical companies expressed interest (Shrestha, 2021). The government, through the national gazette (DoIND, 2021), expressed that incentives and subsidies would be given to interested parties with tax and duty exemptions on the import of machinery and other essentials (Shrestha, 2021).⁸

As the vaccine consignments kept coming and people who wanted to get vaccines decreased, Nepal stocked up on millions of vaccines (Onlinekhabar, 2022). Doses worth millions, however, have expired, as reported by Naya Patrika, a daily newspaper (Adhikari, 2022). Researchers say the expiry date of an unopened multidose vial of the COVID-19 vaccine is six months from the manufacture date (Sah et al., 2021).

The government is currently holding vaccines in case of another COVID-19 wave and the booster doses it would require. Table 5 shows the seven provinces in Nepal, together with three other cold chain stores currently stocking various vaccines (Verocell, Pfizer, and Janssen), and syringes and safety boxes to store and transport them. As of 11 December 2022, there was a stock of 4,768,916 vaccine doses, with Vero Cell stocks constituting roughly 90% of them (4,280,996 doses). This data was provided to the researcher by the Health Ministry after numerous requests. Still, the vaccine expiry dates were not disclosed. Three weeks after this data was obtained, on 2 January 2023, the government declared that it had no vaccines in stock (Poudel, 2023). This raises numerous questions regarding the transparency and accountability of the government concerning these vaccines.

⁸ Incentives included a procurement guarantee for 60% of the total vaccine demand, assuring credit at subsidised interest, and tax and duty exemptions on the import of machinery.

Table 5: Nepal government's vaccine stocks in five provinces

Nepal's vaccine stock status of COVID-19 vaccines (as of 11 December YEAR)											
S.N	Cold chain store	Vero cell	Janssen (J&)	Pfizer Tris (Grey Cap)	Pfizer Pediatric	Total vaccine	AD syringe 0.5 ml	AD syringe 0.3ml	AD syringe 0.2ml	Syringes 1ml	Safety box
1	Koshi Province	0	0	0	0	0	779,000	0	68,500	7,900	8,275
2	Madhesh Province	0	0	7020	0	7,020	417,800	0	110,000	106,800	17,475
3	Hetauda	58,000	-	-	72,000	130,000	1,866,200	0	24,000	252,100	29,657
4	Bagmati Province	117,484	0	0	405600	523,084	1,066,818	181,928	8,000	0	10,628
5	Gandaki Province	245	0	0	3300	3,545	930,000	180,000	170,600	0	7,100
6	Lumbini Province	65,971	-	-	-	65,971	4,543,800	48,000	99,700	61,200	23,375
7	Karnali Province	32,730	0	0	0	32,730	3,142,000	0	79,000	0	14,175
8	Sudur Pashchim Province	6,566	0	0	-	6,566	1,920,800	38,000	-	26,400	13,100
9	Central Store, Pathlaiya	0	0	0	0	0	52,969,300	0	450,000	0	462,325
10	Central Store, Teku	4,000,000	0	0	0	4,000,000	0	1,547,200	0	0	-
	Total	4280996	0	7,020	480,900	4,768,916	67,635,718	1,995,128	1,009,800	454,400	586,110

Note: data provided by by Provincial Health Logistic Management Center (PHLMC) of the Health Ministry

While Nepal's vaccination campaign has largely been a success, numerous existing fault lines within Nepali society were exposed. As a non-manufacturing country, Nepal was forced to depend on the generosity of foreign countries and multinational organisations for its vaccine supply, which meant vaccine choice for citizens was limited. Corruption and lack of transparency plagued the procurement process, even as social inequalities forced marginalised communities to wait longer for jobs than others at the top of the socio-economic ladder.

Marginalised communities, mainly living outside urban areas, received their doses months after the urban community, exposing the existing rural-urban divide. Although the government was successful in disseminating information through various channels, marginalised communities without access to the Internet or other mass media were left out and had to rely on word of mouth. There were also allegations in the media that the government had failed to prioritise some marginalised communities (though a majority of the research subjects eventually got vaccinated).

With a majority of the population now vaccinated, it might appear the vaccination campaign has been a success, but there are improvements that the government can make when it comes to transparency, accountability, and service delivery, especially in rural areas. The following recommendations can help ensure the government addresses these issues:

1. The government should be transparent about vaccine procurement and provide updated data for public use. It should define whether vaccines were purchased, given as aid, or given as a loan. The government should publish all details concerning COVID-19 vaccine consignments and sources.
2. The government should keep track of the supply and demand of the vaccines and make this information easily accessible to the public. In Nepal, large stocks of vaccines have expired as the government failed to properly procure and administer them.
3. Emphasis must be placed on serving marginalised communities. These communities must be given due priority in ensuring that vaccination is easily accessible to them.
4. The process of administering vaccines should also be made simpler by placing vulnerable populations in focus. Vaccine centres should be accessible and in proximity to rural communities. Bureaucratic hassles of filling forms and queuing for hours should be better managed.

5. The capacity of local governments to receive, store, and deploy vaccines should be strengthened. The preparedness of local government units can help close the urban-rural divide.
6. Regional cooperation is necessary in vaccine diplomacy. It does not matter whether vaccines are acquired from China, India, or the rest of the world; the strategy should be to get the vaccines at the cheapest possible prices. In this regard, Nepal needs to be much more transparent about its dealings with foreign governments.
7. The government should partner with the media to combat misinformation and disseminate accurate information. Factual information on vaccines is crucial to sidelining vaccine hesitancy. Languages, cultural contexts, and societal nuances should be considered while encouraging people to get vaccinated.

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