

## COVID-19 Vaccination to realize Green Zones in Bali

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### ABSTRACT

Bali Governor I Wayan Koster revealed that The Bali Provincial Government had developed COVID-19 Free Green Zone as a COVID-19 Free area for tourism. Three areas have been proposed to be a COVID-19 free green zone. There were Ubud in Gianyar Regency, the Nusa Dua Indonesia Tourism Development Corporation (ITDC) Region in Badung Regency and Sanur in Denpasar City. The plan was regulated on Circular letter Number 6 of 2021 concerning the Extension of Village-Based micro-scale social restriction. It was expected that all attractions within the zone would be declared COVID-19 accessible areas, which means domestic and foreign tourists can visit. Mass COVID-19 vaccination would be carried out for people within the zone to ensure the areas' safety. The head of the Bali Provincial Health Office, Ketut Suarjaya, confirmed that the vaccination started on 16 March 2021, after the celebration of Nyepi. Each district government performed each vaccination stage until June. The CoronaVac vaccine, which expired on 25 March 2021, had been fully used for first and second doses targeting Bali's health workers. Meanwhile, the latest vaccines used for public servants, the elderly and other targets were multi-dose vaccines of AstraZeneca. The Bali Provincial Government, from mid to the end of March 2021, received 200,000 doses or vials of the AstraZeneca vaccine. The Bali Provincial Health Office head said there had been no Post-Immunization Adverse Events (AEFI) reports. Therefore the vaccination in Bali would continue.

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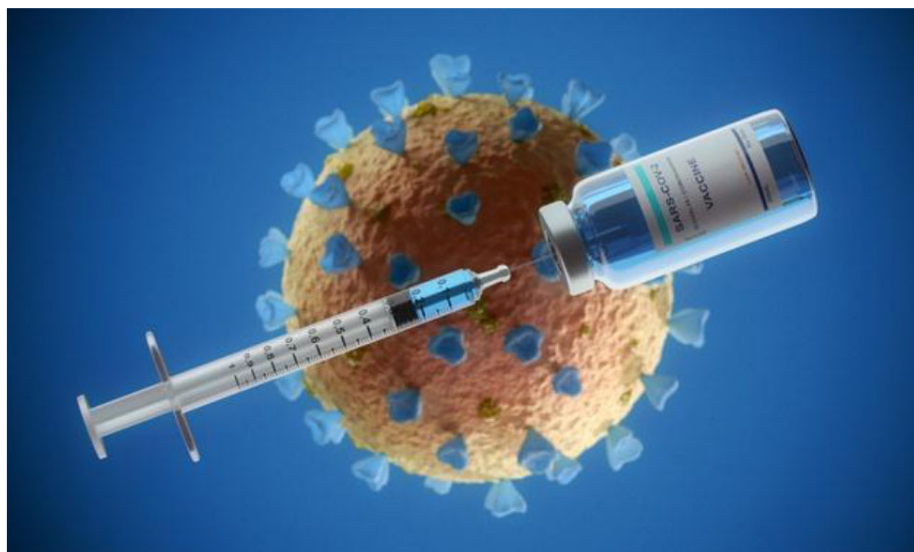
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### BACKGROUND

Bali Governor I Wayan Koster revealed that The Bali Provincial Government had developed COVID-19 Free Green Zone as a COVID-19 Free area for tourism. Three areas have been proposed to be a COVID-19 free green zone. There were Ubud in Gianyar Regency, the Nusa Dua Indonesia Tourism Development Corporation (ITDC) Region in Badung Regency and Sanur in Denpasar City. The plan was regulated on Circular letter Number 6 of 2021 concerning the Extension of Village-Based micro-scale social restriction. It was expected that all attractions within the zone would be declared COVID-19 accessible areas, which means domestic and foreign tourists can visit. To realize the covid-19 free zone, a mass COVID-19 vaccination would be carried out for people living or working in the zone to ensure safety. The Mayor/Regent of each region in Bali would lead the vaccination program in their municipality. According to the Bali

Provincial Health Office's data, 151,603 vaccinations would be given to thousands with two phases injections. Therefore it would require around 303,206 thousand

doses of the COVID-19 Vaccine. In addition to providing an update regarding vaccination data, the local Government also issued provisions for health protocols



**Figure 1.<sup>2</sup>** According to the Bali Provincial Health Office's data, 151,603 vaccinations would be given to thousands with two phases injections. Therefore it would require around 303,206 thousand doses of the COVID-19 Vaccine.



**Figure 2.<sup>8</sup>** President Joko Widodo reviewed the mass Covid-19 vaccination in Gianyar Regency, Bali, on Tuesday, 16 March 2021.



**Figure 3.<sup>13</sup>** President Jokowi received his Vaccine.

implementations. The protocols must be applied to areas that implement the COVID-19 Free Green Zone ranging from health infrastructure, people and transportation mobility.

Meanwhile, the Minister of Health confirmed that his party was ready to support Bali's efforts to implement a COVID-19 Free Green Zone. This step was crucial to reviving the Bali tourism industry; thus, the island can become an excellent example of a safe and healthy tourist destination to the international world. The Minister encouraged the inoculation to be held as soon as possible; thus, economic recovery could be accelerated. Further, he suggested that community movements

and transportation be strictly monitored in and out of the area. He expected the local Government and the private sector to collaborate in realizing the covid-19 free zone as well as in providing other quintessential aspects such as hospitals and good PCR labs with WHO standards.<sup>1</sup>

### GREEN ZONE VACCINATION SCHEDULE

On 13 March 2021, The head of the Bali Provincial Health Office, Ketut Suarjaya, confirmed that the vaccination would be carried out on 16 March 2021, right after the celebration of Nyepi. Each district government would perform the stages until June. In the Ubud area, there are

four villages or sub-districts that received vaccination quotas. The four villages were Kedewatan Village, Ubud Village, Petulu Village, and Sayan Village. Then, in the Sanur area, there were Sanur Kaja Village, Sanur Kauh Village, and Sanur Village. Meanwhile, in Nusa Dua, there were four villages, namely Benoa Village, Tanjung Benoa Village, Jimbaran Village, and Tuban Village in Kuta District.<sup>3</sup> Suarjaya hoped that by June, the three proposed regions would have zero cases of COVID-19.

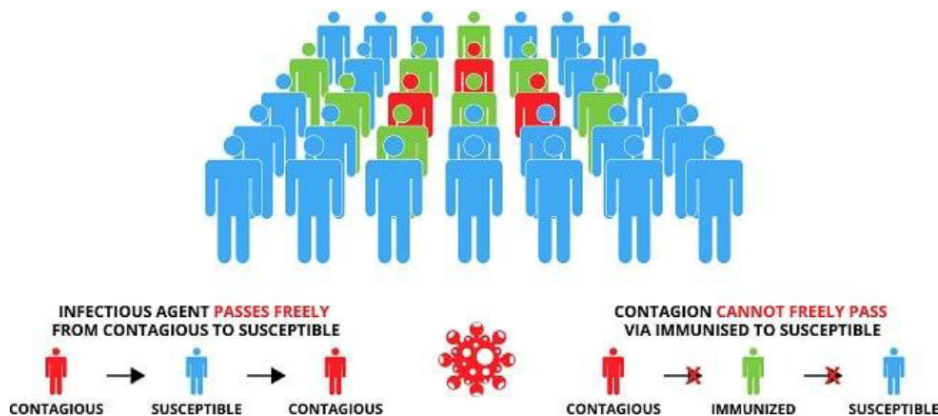
However, the government action was also challenged by widespread rumors regarding the Vaccine's expiry. The circulated rumor mentioned that the first stage of the CoronaVac Vaccine would expire at the end of March 2021. CoronaVac (formerly PiCoVacc) by Sinovac is an inactivated viral vaccine with alum adjuvant. SARS-CoV-2 strain CN2 was extracted from bronchoalveolar lavage (BAL) of a hospitalized patient in Wuhan, cultured in Vero cells, harvested, inactivated using  $\beta$ -propiolactone, then purified before finally absorbed into aluminum hydroxide.<sup>4</sup>

The Bali Provincial Health Office ensured that the CoronaVac vaccine, which expired on 25 March 2021, had been fully used for first and second doses targeting Bali's health workers. Meanwhile, vaccines used for public servants, the elderly and the broader communities were multi-dose vaccines of AstraZeneca.<sup>5</sup> AstraZeneca is a collaboration vaccine project by Oxford University in UK and AstraZeneca, a Sweden-based pharmaceutical company. It is an adenoviral vector-based vaccine based on their previous MERS-CoV vaccine. The Vaccine's vector backbone is a replication-deficient chimpanzee adenovirus, which has a human seroprevalence of 0-9%.<sup>6</sup> The vector contains genes encoding full-length S protein with an adjuvant sequence (tissue plasminogen activator, tPA).<sup>7</sup>

### PRESIDENTIAL VISIT

President Joko Widodo reviewed the mass Covid-19 vaccination in Gianyar Regency, Bali, on Tuesday, 16 March 2021. He was accompanied by Cabinet Secretary Pramono Anung, Presidential Military Secretary Marsda TNI M. Tonny Harjono, President Security Commander

# HERD IMMUNITY COVID-19



**Figure 4.**<sup>19</sup> It is widely assumed that Indonesia needs to reach herd immunity of approximately 67% from the nationwide population to stop the pandemic.

Maj. Gen. Agus Subiyanto, Presidential Special Staff Ari Dwipayana, and Deputy for Protocol, Press and Media Secretariat President Bey Machmudin.<sup>9</sup> The vaccination was participated by tourism industry stakeholders, religious leaders, custom society representatives, youth representatives, and the local community. Jokowi expected that the more people had vaccinated, the rate of transmission of the coronavirus would decrease. He advised regional heads in Bali to continuously promote the importance of health protocols. Albeit vaccination has started, he said, discipline in wearing masks, washing hands, and maintaining social distancing must still be applied since some stages were still needed to reach a normal situation. It is widely assumed that Indonesia needs to reach herd immunity of approximately 67% from the nationwide population to stop the pandemic. It means 175 million people of Indonesia should receive the shot with a necessary supply of 350 million vaccines.<sup>10</sup>

According to the WHO Strategic Advisory Group of Experts on Immunization (SAGE) Roadmap, health care workers, groups with a high risk of death or severe disease, and groups with a high risk of contracting and transmitting SARS-CoV-2 because they are unable to distance themselves effectively, e.g., public

service officers are on high priority to be vaccinated.<sup>11</sup> In Indonesia, the groups that are targeted by the government vaccination program, are health workers, military/police officers and other public service officers; community leaders, central and local government officials, teachers; some groups who receive National Health Insurance (BPJS).<sup>12</sup>

The Covid-19 vaccination in Indonesia had started on 13 January 2021. In the first stage, vaccination was prioritized for health workers. In Indonesia, the number of health workers is around 700 thousand, consisting of 164 thousand doctors, 36 thousand dentists, and 350 thousand nurses, midwives, and community health workers.<sup>14,15,16</sup> Then, the second stage was targeting public service workers and the elderly. Indonesia has an enormous number of elders considering the nation's population. The vaccination was expected to reach 70 percent of Indonesia's population of around 182 million people. President Joko Widodo hopes that vaccinations can raise foreign tourists' trust. Therefore, Bali tourism can reopen in mid-2021.<sup>17</sup>

On Tuesday, 22 March 2021, Covid-19 vaccinations in Sanur were carried out. On the second day of vaccination, approximately 2,471 residents and tourism workers received the shot, totaling 3,750

people from day one. The activities were held at twelve points in Sanur Kaja Village, Sanur Kauh Village, and Sanur Village. The vaccination officers were health workers from Puskesmas I Denut, Puskesmas II Densel, Puskesmas III Densel, Puskesmas IV Denpasar, Puskesmas I Denut, Puskesmas II Denut, Puskesmas III Denut, Puskesmas I Dentim, Puskesmas II Dentim, Puskesmas I Denbar, Poltekkes, RSUD Wangaya, and Sanglah Hospital.

The mayor of Denpasar, IGN Jaya Negara, said that the vaccination would target 35,000 people. Eight thousand of them were hotel and restaurant workers. He expected the program would be finished in the next two or three weeks. The vaccination for Sanur residents starts from 22 March to 30 May 2021, for stages one and two. As for the vaccination procedure, residents can come to the vaccination point by bringing their ID card or a residential letter to the Sanur village office.<sup>18</sup> Meanwhile, In Nusa Dua, the Ministry of Health, in collaboration with Grab and Good Doctor, implemented a 'drive-thru' vaccination service. It was the first service presented in the Southeast Asian region to help accelerate the implementation of Covid-19 vaccination in Indonesia.

## TARGET TO REACH HERD IMMUNITY

The Ministry of Health reported had sent 300,000 doses of Vaccine to Bali by the end of March 2021 to pursue the Covid-19 vaccination target in Bali. In the early stages, the distribution of Covid-19 vaccinations focused on three locations designated as Green Zones. In addition to the tourism green zone, the Covid-19 vaccination was also carried out at I Gusti Ngurah Rai International Airport. The mass vaccination targeting cross-agency workers in the airport area was carried out as a follow-up to President Jokowi's recent instructions regarding the acceleration of vaccination to support the reopening of tourism on the Island of the Gods.

Minister of Tourism and Creative Economic (Menparekraf) Sandianga Uno believed Bali should be given vaccination priority under President Joko Widodo's directives. He viewed the implementation of vaccination in the tourism green zone

and Ngurah Rai Airport as a quick response from the local Government. Regarding the opening of the international gate of Ngurah Rai Airport, Sandiaga said the results of coordination with the relevant ministries had reached the finalization stage and were to be reported to the President. However, Bali was considered unable to open international gates in June-July 2021 immediately since to open the international gate, at least there must be exercises and some simulations carried out by the front line workers.<sup>20</sup>

Bali Governor Wayan Koster was determined to realize the Covid-19 Vaccine for three million residents of the Island of the Gods. However, until the end of March 2021, only 139,884 people in Bali have received the shot. Koster said that three million residents must receive the Covid-19 Vaccine since it was the initial target set by the Bali Provincial Government. The figure was 70 percent of the total Bali population, amounting to 4.3 million. The vaccination in Bali has only been completed by the health workers, whose number has reached 44,426 people. Meanwhile, for the number of vaccines in Bali, Koster required more than 5 million doses, while Bali only received 710,480 doses. Koster said vaccination in Bali would last for 100 days until 30 June 2021, with a daily target of 28,602 people being injected with the vaccine.<sup>21,22</sup>

The vaccination program in Bali continues. The Covid-19 Vaccine was also given to taxi drivers in Bali. PT Blue Bird Group in Bali, Saturday (27/3/2021), held a drive-thru vaccination for their taxi drivers in the Lila Bhuana (Gelora I Gusti Ngurah Rai) area Denpasar City, in collaboration with the Bali Police and the local Government. As a supporting component of the tourism service industry, taxi drivers in Bali received drive-thru vaccination services. No less than 150 taxi drivers from PT Blue Bird Group in Bali were registered as the first dose recipients of the Covid-19 Vaccine on Saturday (27/3/2021).<sup>23</sup> Provincial Government Distributes 200,000 AstraZeneca Vaccines in 3 Green Zones of Tourism Areas in Bali, Ubud, Bali. The Bali Provincial Government, since mid-March 2021, has received 200,000 doses or vials of the AstraZeneca vaccine for the public. The

Bali Provincial Health Office head, Ketut Suarjaya, said there had been no Post-Immunization Adverse Events (AEFI) reports, and in Bali, the vaccination would continue.<sup>24</sup>

## CONCLUSION

The Bali Provincial Government planned to realize COVID-19 Free Green Zone in Ubud, Nusa Dua and Sanur Village. The Government proposed these three areas to be the COVID-19 free area; thus, all tourist areas within the zone would be declared accessible areas. Mass COVID-19 vaccination would be carried out for people within the zone to ensure the areas' safety. The head of the Bali Provincial Health Office, Ketut Suarjaya, confirmed that the vaccination started on 16 March 2021, after the celebration of Nyepi. Each district government performed each vaccination stage until June. The CoronaVac vaccine, which expired on 25 March 2021, had been fully used for first and second doses targeting Bali's health workers. Meanwhile, the latest vaccines used for public servants, the elderly and other targets were multi-dose vaccines of AstraZeneca. The Bali Provincial Government, from mid to the end of March 2021, received 200,000 doses or vials of the AstraZeneca vaccine. The Bali Provincial Health Office head said there had been no Post-Immunization Adverse Events (AEFI) reports. Therefore the vaccination in Bali would continue.

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