

Research Article

Study of Indonesian Vaccine Diplomacy at Bilateral, Regional, and Multilateral Levels to Overcome Covid-19 Pandemic

Astiwi Inayah*, Agus Hadiawan, Tia Kharisma Asnasari

International Relations Department, Faculty of Social and Political Sciences, Universitas Lampung, Indonesia

ORCID

Astiwi Inayah: <https://orcid.org/0000-0002-1179-7209>

Abstract.

Indonesia has continued to carry out vaccine diplomacy since the Covid-19 pandemic emerged in early 2020. Vaccine diplomacy is considered important because vaccines are a crucial tool in dealing with the adverse effects of the Covid-19 pandemic. This study aimed to analyze how Indonesia's vaccine diplomacy is carried out in the form of bilateral, regional, and multilateral cooperation to overcome the Covid-19 pandemic. In addition, the research also focused on the opportunities and challenges faced by Indonesia in making vaccine diplomacy (health diplomacy) to strengthen health security and national health independence. This research used a qualitative approach. The results showed various efforts made by Indonesia to overcome the COVID-19 pandemic at different levels, namely bilateral, regional, and multilateral. This is done by Indonesia to meet the supply of vaccines in an effort to create health security and national health independence. However, there are challenges in its implementation. Indonesia is still struggling against the COVID-19 pandemic, but also has an interest at the global level to actively participate in global health policies. Therefore, it is important for Indonesia to effectively coordinate with the various collaborations that have been established. In the implementation of Indonesia's health diplomacy at the bilateral, regional and multilateral levels, it also creates opportunities for Indonesia's economic recovery, where Indonesia can maximize the production of personal protective equipment. However, it needs to be a concern for Indonesia that in maximizing these commodities, various internal and external aspects must be considered so that effectiveness can be felt not only for Indonesia but also for destination countries.

Keywords: vaccine diplomacy, bilateral, regional, multilateral, Covid-19

1. Introduction

The Covid-19 pandemic has changed the pattern of international relations, health issues have become one of the priorities. Health diplomacy is an important issue in the implementation of foreign relations and efforts to build health resilience, starting from national, regional and world health security. During the Covid-19 pandemic, the Indonesian government made a series of changes in its foreign policy priorities. The Minister of Foreign

Corresponding Author: Astiwi Inayah; email: astiwi.inayah@fisisip.unila.ac.id

Published 6 March 2023

Publishing services provided by Knowledge E

© Astiwi Inayah et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the IAPA 2022 Conference Committee.

 **OPEN ACCESS**

Affairs of the Republic of Indonesia, Retno Marsudi, said that the Covid-19 pandemic provided valuable lessons about the importance of global cooperation to strengthen infrastructure and health governance, economic resilience, and the importance of multilateralism. To continue to contribute to world change, Indonesian diplomacy must be anticipatory, adaptive, and agile (1).

In 2020, Indonesia's diplomatic priorities will be refocused into: strengthening efforts to protect Indonesian citizens, supporting efforts to overcome the pandemic from both the health and socio-economic aspects, and continuing to contribute to world peace and stability. In facing various challenges in the future, Retno Marsudi emphasized that Indonesia needs strong collective global leadership: Recover Together, Recover Stronger. In 2021, Indonesia's diplomacy will focus on five priorities, namely: Building independence and national health security or National Health Insurance; Support economic recovery and green/sustainable development; Strengthening the protection system for Indonesian citizens; Continuing to contribute in advancing various issues in the region and the world; and Protecting the sovereignty and territorial integrity of the Republic of Indonesia with two main focuses, namely intensifying negotiations on land and sea borders and strengthening efforts to protect Indonesia's integrity and sovereignty (1). Meanwhile, in 2022, the focus of Indonesia's diplomacy will be recovery from the COVID-19 pandemic as well as in the health sector.

Health diplomacy, namely vaccine diplomacy, has become one of Indonesia's current diplomatic priorities. The main task of vaccine diplomacy is to pave the way for and access to vaccine supply commitments, both from bilateral and multilateral channels. The task of vaccine diplomacy is carried out not only to open access to short-term needs for the Indonesian people, but also to provide support for multilateralism vaccines (2). The Indonesian government is trying to carry out Covid-19 vaccine diplomacy at the multilateral and bilateral levels as an effort to overcome Covid-19. The availability and affordability of the Covid-19 vaccine for everyone is seen as one of the keys to overcoming the pandemic. Therefore, the availability of vaccines and distribution of vaccines are crucial during this pandemic (3).

Indonesia's diplomacy is not only directed at meeting short-term needs, but also for more strategic long-term interests; including strengthening health security and national health independence. So far, Indonesia has collaborated with 120 parties, consisting of 11 countries, 12 international organizations, and 97 NGOs (2). Retno Marsudi said that vaccine diplomacy is not an easy thing to do. However, the Ministry of Foreign Affairs and related ranks continue to strive to encourage this diplomacy in order to bring enough vaccines for all Indonesian people.

In scientific studies on vaccine diplomacy, especially those aimed at achieving national interests, several studies tend to focus on vaccine diplomacy which is carried out in one form of cooperation, for example bilateral cooperation between vaccine-producing countries and countries that become consumers. However, not many studies have focused on how vaccine diplomacy is carried out in various forms of more comprehensive cooperation, namely bilateral, regional, and multilateral cooperation. This is important because Indonesia's foreign relations activities in vaccine diplomacy are carried out in various forms of cooperation, namely bilateral, regional and multilateral.

This reinforces the increasing importance of research that can examine how Indonesia's vaccine diplomacy is carried out at the bilateral, regional and multilateral levels to achieve national interests, namely strengthening health security and national health independence. Based on the above background, the problem of this research can be formulated as: "How is vaccine diplomacy carried out by Indonesia at the bilateral, regional and multilateral levels to overcome the Covid-19 pandemic?" and "What are the opportunities and challenges faced by Indonesia in making vaccine diplomacy (health diplomacy) to strengthen health security and national health independence?"

2. Theoretical Framework

2.1. Vaccine Diplomacy (Health Diplomacy)

The concept of vaccine diplomacy (health diplomacy) was used as a basis in this research to see how Indonesia can carry out vaccine diplomacy in the form of bilateral, regional, and multilateral cooperation to overcome the Covid-19 pandemic. Vaccine diplomacy is carried out by the state to gain access to vaccines and to ensure the availability of vaccine needs for its citizens. However, the government's efforts to obtain vaccines sometimes do not run easily due to the very high global demand for vaccines. All countries hope to get supplies from vaccine manufacturers soon. To that end, the government is intensively lobbying, both through bilateral, regional and multilateral cooperation. The main task of vaccine diplomacy is to pave the way for and access to vaccine supply commitments, both from bilateral and multilateral channels. The task of vaccine diplomacy is carried out not only to open access to short-term needs for the Indonesian people, but also to provide support for multilateralism vaccines (2).

Health diplomacy has a variety of definitions offered by the Public Health Community. According to Feldbaum and Michaud, health diplomacy is a combination that is used to explain the health negotiation process, the health impact of non-health negotiations,

and foreign policy goals to support global health (4). Another view of Kickbusch, Silberschmidt, and Buss is that global health diplomacy aims to capture the multi-level and multi-actor negotiation processes that shape and manage the global policy environment for health (5). Meanwhile, Fauci defines health diplomacy as a tool to win the hearts and minds of people in poor countries by exporting medical care, expertise, and personnel to help those who need it most (6) .

Kickbusch, Lister, Told, and Drager summarize health diplomacy as a multi-level negotiation process that shapes and manages the global policy environment for health. Health Diplomacy ideally produces better health security and population health for each of the countries involved. In addition, health diplomacy also improves relations between countries and strengthens the commitment of various actors to work together to ensure health as a human rights and public good (7).

2.2. International Cooperation

The concept of international cooperation is defined as a form of relationship carried out by a country with other countries that aims to meet the needs of the people and for the benefit of countries in the world. International cooperation includes cooperation in the fields of politics, social, defense and security, culture, and economy, and is guided by the foreign policy of each country (8).

International cooperation is also carried out to strengthen relations between countries, to meet each other's needs and help each other when someone needs help. International cooperation can be carried out by countries in the form of bilateral, regional and multilateral cooperation. Bilateral cooperation is cooperation between two countries in the form of diplomatic relations, trade, education, and culture. In establishing bilateral relations, Indonesia prioritizes the values of mutual respect, does not interfere in the internal affairs of other countries, refuses to use violence, and prioritizes consensus. Regional cooperation is the cooperation of several countries in one region. Usually this cooperation is motivated by mutual interests between countries. Meanwhile, multilateral cooperation is cooperation between several countries. Multilateral cooperation is not limited to regions or regions. Multilateral cooperation has two types of members, namely main members and active members. The role of the main members is larger, while the role of active members is more limited.

3. Methods

This study used a qualitative approach because this study interpreted data in the form of words in its implementation but not only on the collection and preparation of existing data but includes analysis and interpretation of the data studied so as to produce descriptions in the form of written or spoken words from people and observed behavior which aims to make a systematic, factual and accurate description or description of the factors, properties, and relationships between the phenomena being investigated.

The types of data used in this study are primary data (data obtained from primary sources) and secondary data (data previously collected by other people). While the primary data source used in this study came from interviews with the Ministry of Foreign Affairs of the Republic of Indonesia. The secondary data sources in this study come from official articles, official documents, journals, official reports and official sites or websites.

Data collection techniques used in this study were interviews and literature studies. First, interview techniques are used to collect primary data related to the research focus. The interviews applied in this study were conducted in a structured manner using an interview guide in the form of research questions. The instruments used to conduct these interviews included written interview answers from the informant. In this study, the informant interviewed was the Directorate of ASEAN Socio-Cultural Cooperation, Ministry of Foreign Affairs of the Republic of Indonesia. Second, literature study is a series of activities related to methods of collecting library data, reading, taking notes, and processing research materials. This technique is used to collect data related to Indonesia's vaccine diplomacy which is carried out in the form of bilateral, regional and multilateral cooperation.

Technical data analysis in this study used interactive model data analysis developed by Miles & Huberman (9). In this study, data analysis begins with data collection from various sources. Data is then reduced to simplify, classify, and discard unnecessary. This aims to facilitate data analysis and take the next research steps. This process continues from the beginning of the research until the research reaches the final conclusion. Furthermore, the display of the data in this study is in the form of descriptions (in the form of words originating from primary sources and secondary sources), and tables are used to make it easier for readers to understand the information in the research. Then after the data and information have been saturated and their credibility can be proven, the next step is conclusion. In this study, the conclusions drawn are in the form of Indonesia's strategies for dealing with the COVID-19 pandemic through three lines of diplomacy, namely, bilateral, regional and multilateral.

4. Results and Discussion

4.1. Indonesia's Vaccine Diplomacy at the Bilateral Level

According to Retno Marsudi, as the Minister of Foreign Affairs of Indonesia, bilateral cooperation is a manifestation of the Government of Indonesia's commitment to focus on the goals of Indonesia's diplomacy during the COVID-19 pandemic, namely achieving independence and national health resilience (10). Indonesia's commitment through health diplomacy is marked by increasing health spending, providing assistance in the response to the pandemic and relaxing regulations on exports of medical devices. Another of Indonesia's commitments is shown by making the business aspect an element in the implementation of health diplomacy, one of which is Indonesia's readiness to export Personal Protective Equipment (PPE) whose availability reaches 40% (11).

Through bilateral relations, Indonesia takes advantage of existing communications with countries. In addition, Indonesia also takes advantage of the business sector, namely collaborating with state-owned enterprises (Badan Usaha Milik Negara-BUMN) and private-based vaccine producers from abroad. One example is Indonesia's collaboration with the British-owned AstraZeneca, where in 2021 Indonesia is known to receive a vaccine guarantee of 100 million vaccines. Bilateral diplomacy between the two countries is supported because Indonesia is a non-permanent member of the United Nations Security Council, so this condition benefits Indonesia (12)

The form of Indonesia's health diplomacy through bilateral channels with private companies abroad can also be seen from the entry of the Sinovac vaccine into Indonesia. This is a collaboration between BUMN Bio Farma (Indonesia) and Sinovac Biotech (China). This collaboration is one of Indonesia's strategies through the Minister of Foreign Affairs, Retno Marsudi, who travels to various countries with the aim of supplying Indonesia's vaccine supplies. It should be noted that in the early days of the emergence of COVID-19, Indonesia assisted China in its fight against the virus by sending aid in the form of medical equipment such as face masks and surgical instruments.

Then on January 13, 2021, Indonesia and China also held bilateral cooperation in vaccine diplomacy, where the Minister Foreign Affairs of China, H.E. Wang Yi visited the Minister of Foreign Affairs of the Republic of Indonesia, Retno Marsudi in order to discuss the issue of health cooperation. One of the highlights in the discussion between the two parties, Minister Retno emphasized the importance of following up on China's various commitments in handling the pandemic, one of which was the commitment of

USD 5 million to support the Public Health Cooperation Initiative: Program on Public Health Emergency Preparedness Capacity (PROMPT) (13).

Indonesia has also taken various forms of health diplomacy at the bilateral level, for example on May 10, 2021, Indonesia sent as many as 200 oxygen concentrator units to India, where previously Indonesia had sent 1,400 oxygen cylinders (14). In addition, Indonesia also provides assistance to the country of Fiji as a form of solidarity and partnership in the Pacific region through a grant agreement. This agreement is Indonesia's commitment to assisting the recovery of COVID-19 in Fiji. In July 2020, Indonesia provided funds amounting to US\$200,000 as an effort to support the availability of equipment and facilities in the form of medical equipment for handling the pandemic in Fiji (15).

The funds allocated by Indonesia to Fiji are not only focused on helping the handling and recovery of COVID-19, but also contributing to humanitarian and economic problems. For example, Indonesia provided people on Kadavu Island, Fiji with humanitarian aid in the form of food, drinks and tents with a total weight of 13 tons. This assistance aims to assist the recovery of Fiji tourism as one of the country's main economic income sectors (16). Besides Fiji, Indonesia also plays an active role in the Oceania region, namely the Solomon Islands. During the COVID-19 pandemic, Solomon Islands became one of the countries that did not have the ability to develop their country's health system due to lack of funds, Solomon even sent 13 of its citizens to an Australian laboratory because they were suspected of being positive for COVID-19. This inability then prompted Indonesia to provide assistance to the Solomon Islands through Indonesia Aid which aims to help fund medical devices (17).

International cooperation at the bilateral level is also carried out by Indonesia and South Korea. Through the company PT Kalbe Farma Tbk, Indonesia signed a memorandum of understanding with Genexine, Inc., a South Korean company. The two companies agreed to conduct a GX-19 clinical trial, namely the development of a DNA vaccine for a new type of Corona virus involving a consortium, Pohang University of Science and Technology (POSTECH), the Korea Advanced Institute of Science and Technology (KAIST), Binex, GenBio, and the International Vaccine Institute (IVI). In addition, Retno's visit to Abu Dhabi at the end of 2020 resulted in a joint agreement in terms of research, development, distribution of testing and treatment related to COVID-19 between Group 42 (G-42) Health Care with Indo Farma and BUMN Kimia Farma. Indonesia is also cooperating with China to help business people and create safe business trips under the "essential business travel corridor arrangement", where previously Indonesia had

also agreed on similar arrangements with the United Arab Emirates and South Korea (12).

Indonesia is also involved in commitments with Australia in fighting COVID-19. This commitment was created within the framework of the “Indonesia COVID-19 Development Response Plan.” The framework consists of three main pillars, including: (1) supporting Indonesia in handling the mitigation of the impact of COVID-19 by providing policies and technical advice related to health responses in terms of health security. Indonesia; (2) The Australian Government also supports the expansion of the social safety net program to ensure Indonesia’s stability during the shocks of COVID-19 and; (3) assist Indonesia in recovering economic conditions as a result of the COVID-19 pandemic (18). As an effort to deal with the economic impact of the virus, Australia is also assisting Indonesia by providing incentive assistance by establishing infrastructure, supporting human resource growth and development aimed at empowering the economy and productivity for marginalized groups, women and persons with disabilities, including encouraging domestic business capabilities, and realizing inclusive economy (19).

Indonesia’s bilateral cooperation with various countries aims to provide a domestic supply of vaccines as well as to support global vaccine supplies. Indonesia’s bilateral cooperation with other countries such as China is a form of international cooperation that aims to meet the needs of the Indonesian people for the availability of vaccines and as an effort for Indonesia to contribute to the world’s vaccine supply, such as being involved in helping other countries by sending aid both in terms of economy and security. In this case, Indonesia’s role is not only concerned with its own national interests, but also seeks to achieve the interests of world countries. Indonesia’s foreign policy by utilizing health diplomacy implemented through bilateral cooperation during the COVID-19 pandemic is also in line with the concept of international cooperation, where Indonesia participates in meeting the needs of other countries that need assistance in dealing with the impact of the COVID-19 pandemic.

4.1.1. Indonesian Vaccine Diplomacy at Regional Level

Budi Gunadi Sadikin as the current Minister of Health of Indonesia explained that Indonesia has made an adequate and stable strategy to secure vaccine supply, seeks to advance the launch of vaccination at the national level, and takes an approach to overcome public doubts about the effectiveness of the vaccine. As chair of the ASEAN Vaccine Health Ministers Meeting (Chair of the ASEAN Health Ministers Meeting), Minister Sadikin also outlined key regional initiatives designed to facilitate the recovery of

member countries from the impact of the COVID-19 pandemic and maximize community preparedness and resilience in the future against crises. Health (20).

ASEAN is a regional body in the Southeast Asia region that has also highlighted the importance of joint handling of the COVID-19 pandemic. This is stated in the ASEAN Vision 2025 on Disaster Management which emphasizes the importance of conducting communication exchanges by sharing information and gathering resources among key stakeholders. ASEAN has played an active role since the outbreak of the pandemic in China. Through the ASEAN Network of Emergency Operations Centers for Public Health Emergencies (ASEAN EOC Network), which is led by Malaysia, it provides a publicly available platform that ASEAN member states in crisis and disease prevention centers can use to communicate and share information (21).

One of Indonesia's roles in this regional cooperation is to be the chairperson at the ASEAN Health Minister (AHHM) meeting. This meeting aims to deepen regional cooperation with stakeholder countries and improve strategies to mitigate the spread of COVID-19 infection between countries. At the meeting, agreements were obtained including: (1) strengthening regional cooperation related to risk communication to prevent misinformation and the spread of fake news; (2) continue to share research and study information in an open, transparent and real time manner; (3) increasing the use of digital technology and artificial intelligence (AI) to coordinate health-related responses across borders and; (4) institutionalize the preparedness, surveillance, prevention, detection and response mechanisms of member countries with global partners.

The cooperation of ASEAN member countries was also strengthened by the ratification of the "Declaration of the Special ASEAN Summit on Coronavirus Disease 2019 (COVID-19)" on April 14, 2020 which contained seven main steps in strengthening forms of cross-border cooperation in the future. These measures have been approved by countries which include: (1) strengthening public health cooperation to tackle the pandemic and protect people; (2) maintain the continuity of the supply chain; (3) fostering a multi-stakeholder approach; (4) reduce the socio-economic impact of the pandemic collectively and maintain political stability in particular to safeguard the welfare of the community; (5) increase the dissemination of transparent and important health and safety information to the public through various media platforms; (6) provide targeted assistance aimed at supporting ASEAN citizens in third countries affected by the pandemic and; (7) reallocating funds in an effort to support the establishment of the Covid-19 ASEAN Response Fund (22).

Indonesia also benefits from cross-border collective action cooperation. As part of the Strategic Preparedness and Response Programme, the Islamic Development Bank

(IsDB) initiated a program to build national laboratory capacity in its member countries as part of the response to the COVID-19 pandemic. As part of its program framework, the IsDB and China are collaborating to build the capacity of public health laboratories in countries that are deemed eligible. The countries that have benefited are Indonesia and Singapore with the creation of an artificial intelligence project and advanced analytics in overcoming the disease caused by COVID-19. For Indonesia, the project aims to help equip the country with data center infrastructure to mitigate the COVID-19 pandemic and possible health crises in a robust and effective manner by providing timely and comprehensive data analysis (23).

As Chair of the AHMM and SOHMD (Senior Official Meeting on Health Development), Indonesia is the main leader in terms of contributing to ASEAN's goals to increase cooperation in handling COVID-19 and ensuring health which is reflected in all policies, especially in the movement towards recovery after COVID-19 and ASEAN. after 2025. In this leadership, Indonesia is represented by Minister Sadikin stating that the mechanisms that are being carried out by ASEAN are the ASEAN Health Development Agenda and the ASEAN Health Cluster that support ASEAN member countries in responding to the COVID-19 pandemic. These mechanisms include: (1) the ASEAN Emergency Operations Center Network (ASEAN EOC) dedicated to community emergencies; (2) ASEAN Risk Assessment and Risk Communication (ARARC); (3) ASEAN+3 Field Epidemiology Training Network (ASEAN+3 FETN) and; (4) Regional Public Health Laboratory Network and ASEAN BioDiaspora Virtual Center (ABVC) (20).

Indonesia also proposed the establishment of The ASEAN COVID-19 Response Fund which aims to finance the purchase of medical equipment and other necessities to encourage the achievement of welfare and protection from the COVID-19 virus for all Southeast Asian countries (24). ASEAN as a cooperation forum for countries in the Southeast Asian region is one of Indonesia's forums in carrying out vaccine diplomacy in achieving strengthening health security and national health independence. Through vaccine diplomacy at the regional level, Indonesia seeks to engage in multi-actor cooperation to meet needs during a pandemic. This is in line with the concept of vaccine diplomacy by Kickbusch, Silberschmidt, and Bus, one of which is by opening wider access to manage global health policies. The role of Indonesia together with all ASEAN member countries aims to obtain vaccine supplies and encourage the creation of security in the health sector by creating various strategies as an effort to deal with the impact of COVID-19 in the future.

4.2. Indonesia's Vaccine Diplomacy at the Multilateral Level

Indonesia realizes that cooperation is an important point in ending the COVID-19 pandemic. Therefore, Indonesia is committed and actively participates in advancing the principle of fair and equitable access to vaccine access through multilateral cooperation with the COVAX Advance Market Commitment (AMC). AMC is a platform under the auspices of COVAX which ensures that every country has the right to obtain the same vaccine supply as other countries regardless of the country's financial condition. AMC is intended for low- and middle-income developing or low-income countries. Indonesia is a member of the AMC and has access to free vaccines or full subsidies for 20% or around 108 million doses of vaccine until the end of 2022 (12).

Meanwhile, COVAX is a vaccine pillar under the Accelerator Access to COVID-19 Tools (ACT) led by the Coalition Epidemic Preparedness Innovations (CEPI), GAVI (Global Alliance for Vaccines and Immunization), and World Health Organizations (WHO) with its main partner, UNICEF (25). Indonesia's multilateral cooperation with WHO, CEPI, and GAVI is a form of Indonesia's multilateral diplomacy to realize fair and quality global health standards, where "Health for All" is the slogan of Indonesia's health diplomacy. Indonesia's joining in COVAX helps increase the domestic supply of vaccines. For example, until July 2021, Indonesia managed to secure vaccine doses of 119,735,200, with the following distribution: (1) Sinovac vaccine doses of 108,500,000; (2) the dose of Sinopharm type vaccine is 1,500,000; (3) the dose of AstraZeneca vaccine is 8,236,800 originating from COVAX; (4) additional doses of AstraZeneca vaccine from Japan as many as 998,400 and; (5) the dose of Sinopharm vaccine from the United Arab Emirates is 500,000 (20).

Indonesia's other role at the multilateral level can also be seen from Indonesia's support for the adoption of the United Nations General Assembly Resolution "Global Solidarity to Fight COVID-19" on April 2, 2021. Together with Ghana, Liechtenstein, Norway, Singapore and Switzerland, Indonesia is trying to pass the resolution at the United Nations, where the resolution aims to invite all countries to cooperate in responding to the COVID-19 pandemic. This resolution also emphasizes that international cooperation plays an important role in suppressing, managing and eradicating by exchanging information, policies and knowledge as well as implementing guidelines made by WHO. In the resolution, the United Nations was also urged to coordinate with all its members to unite cooperation in responding to pandemic issues that could have an impact on the financial, economic and social fields (12).

Indonesia was also elected as the vice chairman of the COVAX Advance Market Commitment (AMC) Engagement Group (EG). This forum facilitates consultations between AMC member countries to implement a national vaccination plan. The election of Indonesia as vice chairman opens opportunities for the supply of vaccines in the country. For example, on March 8, 2021, Indonesia received a supply of vaccines from the UK, Astra Zeneca as much as 1,113,600. This vaccine is the result of a multilateral collaboration between WHO and GAVI. In addition, Indonesia also carries out health diplomacy in Europe which is manifested in a long-term cooperation program to detect COVID-19 disease, which is named 'ZODIAC' (Zonotic Disease Action Program) (Ibid, 138-139). To support the increase in global vaccine production, Indonesia is also involved in the WTO TRIPS, which is a temporary waiver program on the protection of intellectual property for the COVID-19 vaccine, which is expected to encourage the development of vaccine manufacturing both domestically and in the Southeast Asian region (20).

Multilateral cooperation in the field of vaccine research and development is also pursued by Indonesia through the Coalition of Epidemic Preparedness Innovations (CEPI). Indonesia's active participation in CEPI aims to support safe, equitable, affordable and effective access to vaccine supplies. Some of Indonesia's participations, for example, during the Indonesian Foreign Minister's visit to London on October 13, 2020, related to the results of the Bio Farma Due Diligence as a producer of medicinal products for the COVID-19 vaccine which was declared good by the CEPI President Director, where these results will strengthen Indonesia's national resilience, especially the health system and industry. to respond to future pandemics. In addition, Indonesia was also involved in the Investor Board Meeting held on November 30, 2020 which was attended by Councils from the state, the private sector and various other stakeholders to discuss the CEPI Strategy 2022-2026 and the involvement of Low-Income Countries (12).

Indonesia's role at the multilateral level reflects Indonesia's efforts to support fair and equitable vaccine availability globally. The joining of Indonesia as a member of the AMC under the auspices of COVAX provides benefits for Indonesia in achieving Indonesia's diplomatic goals in 2021, namely achieving National Health Insurance and Indonesia's diplomacy in 2022, namely recovery from the impact of COVID-19 including optimization in the health sector. In line with the concept of vaccine diplomacy, Indonesia's progress through the COVAX organization also shows Indonesia's role in supporting multilateralism vaccine supplies. This is also in line with the opinion of (4) that Indonesia contributes in handling the health impacts of the COVID-19 pandemic and supports efforts to achieve global health by carrying out the Indonesian health diplomacy slogan that health

is the right of everyone. Vaccine diplomacy at the multilateral level also demonstrates Indonesia's multi-level role in helping manage global health policies during a pandemic.

4.3. Opportunities and Challenges of Indonesia's Vaccine Diplomacy

In 2020, Indonesia's health diplomacy will focus on three main points, including: (1) strengthening the protection of Indonesian citizens; (2) support efforts to deal with the impact of the pandemic both in terms of health and economic and social (Ministry of Foreign Affairs of the Republic of Indonesia, 2021) Indonesia's foreign policy in 2021 has five priorities, one of which focuses on national health resilience in health services aimed at ensuring protection Indonesian people during the COVID-19 pandemic. Retno Marsudi as the Indonesian Minister of Foreign Affairs, stated that Indonesia's efforts to obtain vaccine supplies are not only focused on Indonesia's national interests, but also prioritize equal access to vaccines globally, so that through health diplomacy, Indonesia seeks to build national resilience and independence in the field of health. health for the long term (26).

According to Minister Sadikin, the challenge facing Indonesia is not about the capacity of vaccination, but the problem with the supply of vaccines. Indonesia cannot continue to depend on supplies from abroad, so it is an opportunity for Indonesia to be able to produce vaccines independently. Health diplomacy is one of Indonesia's strategies in overcoming the lack of uneven access to vaccines. The impact of the COVID-19 pandemic on Indonesia not only threatens the stability of the country, but also has implications for the security of the Indonesian people and domestic economic conditions. So it is important for Indonesia to focus on Indonesia's diplomatic strategy in the health sector, because the limited availability of vaccines can threaten the state's function in achieving national prosperity and world peace (26).

In this regard, Indonesia is currently working on developing a local vaccine, of which there are two vaccine candidates. The first is a local vaccine derived from a recombinant protein subunit developed by the Eijkman Institute in collaboration with PT. Biopharma. The second is a local vaccine derived from an inactivated virus developed by Universitas Airlangga in collaboration with PT. Biotis. This development is carried out to provide long-term vaccine supplies in the country (20). The following is a list of vaccines developed independently by Indonesia to build production capacity and vaccine stock in the country.

TABLE 1: List of Indonesian Local Vaccine Production Development.

| Number | List of Indonesian Local Vaccine Production Development | | | |
|--------|---|---|------------------------------------|--------------------|
| | Vaccine name | Development institution | Technology | Result |
| 1. | Merah Putih Vaccine | Biotics Pharmaceutical and Airlangga University | Inactivated virus | Pre-clinical stage |
| 2. | Merah Putih Vaccine | Eijkman Institute and Bio Farma | Recombinant protein | Exploratory stage |
| 3. | Merah Putih Vaccine | Institut Teknologi Bandung | Vector adenovirus | Exploratory stage |
| 4. | Merah Putih Vaccine | Indonesian Institute of Science (LIPI) | Recombinant protein | Exploratory stage |
| 5. | Merah Putih Vaccine | Gajah Mada University | Recombinant protein | Exploratory stage |
| 6. | Merah Putih Vaccine | Padjajaran University | Recombinant protein | Exploratory stage |
| 7. | Merah Putih Vaccine | University of Indonesia and Etana Biotechnologies | DNA, RNA, and virus like particles | Exploratory stage |

In addition to challenges related to vaccine supply, Indonesia is also faced with the issue of public doubts about the COVID-19 vaccine, especially from rural residents, parents to parents who are worried about injecting their children. In response to the issue, Minister Sadikin explained that the vaccination campaign had started in 2020, where the Indonesian Ministry of Health prepared a National Communication Strategy for the COVID-19 Vaccine and formed an educational media strategy as a reference or guideline for republishing and modifying messages related to COVID-19. Some of these communication strategies include short messages, question and answer e-books about COVID-19, educational advertisements and infographics. The Indonesian Ministry of Health also promoted the motto "I am ready to be vaccinated". According to Minister Sadikin, mass campaigns on various social media channels were considered effective and successful in increasing trust in COVID-19 vaccination (20).

In addition to facing challenges in increasing public confidence to vaccinate, Indonesia is also faced with other challenges, the government also continues to strive to combat hoaxes by educating the public about the benefits, safety and effectiveness of the COVID-19 vaccine, including providing various factual information. The Indonesian

government also provides access in the form of transportation for the elderly to vaccinate at the nearest place by picking up, dropping off and vaccinating door to door with the help of family members and vaccinating at night. All these efforts were made by the government to overcome vaccine doubts in the community and increase public confidence in the importance of COVID-19 vaccination (20).

Digital transformation is an important element in handling the COVID-19 pandemic. According to the World Bank, advanced robotics, cloud computing, artificial intelligence, data retrieval and analytics, the Internet of Things (IoT) and digital fabrication, play an important role in influencing trade chains and supply (27). The COVID-19 pandemic presents challenges for countries with very limited digital infrastructure services. It is known that among the members of the Asian Infrastructure Investment Bank, nearly 2.4 billion people do not have access to the internet, of which Indonesia is one of those mentioned in this condition, following other countries, namely India, China, Pakistan, Bangladesh, and the Philippines (23). Nevertheless, Indonesia still has the opportunity to recover from the impact of the COVID-19 pandemic, one of which is from an economic perspective, which is in line with the focus of Indonesia's health diplomacy in 2020, which is to deal with the pandemic from an economic perspective, one of which is by utilizing the production of Personal Protective Equipment (PPE). The World Health Organization, WHO also appealed to the industry to increase production by 40% and asked country governments to immediately increase the supply of vaccines to support global market demand. Indonesia's PPE strategy is shaded by PT Sritex and PT Surya Usaha Mandiri, where each company has obtained ISO 16604 Class 3 and Class 2 certifications at Intetek HQ, Cortland, United States and has met WHO standards so that this achievement is a strategic opportunity for Indonesia to obtain economic benefits in the midst of the COVID-19 pandemic (28).

According to Arifi Saiman as the Indonesian Consul General in New York, PPE has a strategic value economically. According to him, PPE is a general item and a long-term commodity, for example the use of masks can not only be used during a pandemic but can also be used in the future for other purposes. The production of PPE can encourage job opportunities that participate in the absorption of labor in Indonesia. In addition, the selling price of PPE is more expensive than the COVID-19 vaccine. The cost of producing PPE is also cheaper than the cost of producing vaccines. However, there are several challenges in using PPE as a strategy for Indonesia's economic recovery during a pandemic, among others, Indonesia also needs to ensure that the availability of PPE for domestic needs is met before exporting (Ibid: 734). As it is known that Indonesia is one of the countries participating in the war against COVID-19 to this day, it is known

that Indonesia's positive COVID-19 cases have reached 6,278,332 as of August 13, 2022 (29).

Another challenge is the issue of certification and exporter compliance with Indonesian export standards. The certification in question is that the PPE that will be exported must comply with international standards. Meanwhile, regarding export standards, Indonesia has Government Regulation Number 102 of 2000 which contains technical specifications and procedures and methods that must be fulfilled by exporters before marketing products. Before exporting, Indonesian exporters also need to pay attention to the requirements of export documents, usually in the form of a Certificate of Origin (CoO), a Service Note issued by the Customs Office or international certification of the destination country. The image of trade is also a challenge in PPE exports, this is usually related to mutual trust between the exporting country and the destination country. Finally, the importance of coordination and communication with all interested parties to promote Indonesian PPE at the global level so that it can become a superior product (28).

5. Conclusion

Various efforts made by Indonesia to overcome the COVID-19 pandemic were taken by Indonesia at various levels, namely bilateral, regional and multilateral. This is done by Indonesia to meet the supply of vaccines in an effort to create health security and national health independence. However, there are challenges in its implementation. Indonesia is still struggling against the COVID-19 pandemic and Indonesia also has an interest at the global level to actively participate in global health policies. It is important for Indonesia to coordinate the various collaborations that have been established effectively. In the implementation of Indonesia's health diplomacy at the bilateral, regional and multilateral levels, it also creates opportunities for Indonesia's economic recovery, for example Indonesia can maximize the production of PPE. But it needs to be a concern for Indonesia that in maximizing these commodities, various internal and external aspects must be considered so that effectiveness can be felt not only for Indonesia, but also for destination countries.

For recommendations, the opportunities and challenges faced by Indonesia in strengthening health insecurity and achieving national health independence certainly deserve serious attention for the Government of Indonesia. The challenges that arise can be an opportunity for Indonesia to open a wider line of cooperation and will have implications for the expansion of Indonesia's role at the global level. One of the

important problems in Indonesia's health diplomacy is that Indonesia is still dependent on the supply of vaccines from other countries and is not yet fully capable of producing local vaccines independently. For local vaccine production, Indonesia needs to focus and emphasize cooperation with countries or private companies abroad who are more experienced. The Government of Indonesia also needs to pay attention to combat hoaxes that are spread in the community, especially public doubts about the effectiveness of the vaccine. The government needs to explain clearly and in detail to the public that the vaccines produced are safe and do not have any indications that are harmful to the body.

References

- [1] Menlu RI sampaikan capaian politik luar negeri Indonesia 2020 dan prioritas diplomasi 2021 [Internet]. 2021 [cited 2022 Mar 3]. Available from: <https://kemlu.go.id/manama/id/news/10500/menlu-%20ri-sampaikan-capaian-politik-luar-negeri-%20indonesia-2020-dan-prioritas-diplomasi-2021>
- [2] Upaya Pemerintah Mengatasi Pandemi [Internet]. 2021 [cited 2022 Mar 4]. Available from: <http://www.tabloiddiplomasi.org/upaya-pemerintah-mengatasi-pandemi/>
- [3] Kemenlu Tegaskan masih Terus Lakukan Diplomasi Vaksin Covid-19 [Internet]. 2021 [cited 2022 Mar 7]. Available from: <https://mediaindonesia.com/humaniora/437714/ke%20menlu-tegaskan-masih-terus-lakukan-diplomasi-%20vaksin-covid-19>
- [4] Feldbaum H, Michaud J. Health Diplomacy and the Enduring Relevance of Foreign Policy Interests. *PLoS Med.* 2010 Apr 20;7(4):e1000226.
- [5] Kickbusch I. Global health diplomacy: the need for new perspectives, strategic approaches and skills in global health. *Bull World Health Organ.* 2007 Mar 1;85(3):230–2.
- [6] Fauci AS. The expanding global health agenda: a welcome development. *Nat Med.* 2007 Oct 17;13(10):1169–71.
- [7] Duten AJ. Global health diplomacy: concepts, issues, actors, instruments, fora and cases. *Med Confl Surviv.* 2015 Apr 3;31(2):127–8.
- [8] Ikbar Y. *Metodologi & Teori Hubungan Internasional*. Bandung: PT Refika Aditama; 2014.
- [9] Miles MB, Huberman AM. *Analisis data kualitatif: buku sumber tentang metode-metode baru*. Jakarta: UI Press; 2014.

- [10] Limantara AC, Gosal E, Paramastuti HA, Kriswicaksana IB, Seva Y, Amalia Z. Tujuan Diplomasi Kesehatan Indonesia di Masa Pandemi COVID-19: Studi Kasus dalam Diplomasi Bilateral Indonesia dengan Fiji dan Kepulauan Solomon [Internet]. Available from: <https://covid19.who.int/region/searo/country/id>
- [11] Sandi F. Catat! 40% Produksi APD RI akan Diekspor [Internet]. 2020 [cited 2022 Jun 7]. Available from: <https://www.cnbcindonesia.com/news/20200619162907-4-166679/catat-40-produksi-apd-ri-akan-diekspor>
- [12] Setiawan A, Affianty D, Tanjung NF. UPAYA DIPLOMASI VAKSIN INDONESIA MELALUI JALUR MULTILATERAL DAN BILATERAL. 2022; Available from: <http://jurnal.umj.ac.id/index.php/independen>
- [13] Hanura M, Susiatiningsih H, Utomo T, Rusyadi R, Unyi Putri S. Managing Common Security: Indonesia-China Cooperation in Handling Covid-19 Pandemic. In: Proceedings of the First International Conference on Democracy and Social Transformation, ICON-DEMOST 2021, September 15, 2021, Semarang, Indonesia. EAI; 2022.
- [14] BPMI Setpres. Pemerintah RI Kirim Bantuan Hibah untuk Penanganan Covid-19 di India [Internet]. 2021 [cited 2022 Jun 8]. Available from: [https://www.presidentri.go.id/siaran-pers/pemerintah-ri-kirim-bantuan-hibah-untuk-penanganan-covid-19-di-india/#:\\$\sim\\$:text=Pemerintah%20Republik%20Indonesia%20mengirim%20sejumlah,%2C%20Rabu%2C%2012%20Mei%202021](https://www.presidentri.go.id/siaran-pers/pemerintah-ri-kirim-bantuan-hibah-untuk-penanganan-covid-19-di-india/#:\sim:text=Pemerintah%20Republik%20Indonesia%20mengirim%20sejumlah,%2C%20Rabu%2C%2012%20Mei%202021)
- [15] Kementerian Luar Negeri. Bantuan Indonesia Perkokoh Solidaritas dan Kemitraan di Pasifik [Internet]. 2020 [cited 2022 Jun 10]. Available from: <https://kemlu.go.id/portal/id/read/1987/berita/bantuan-indonesia-perkokoh-solidaritas-dan-kemitraan-di-pasifik>
- [16] GRANT AGREEMENTS SIGNED BETWEEN FIJI AND INDONESIAN GOVERNMENTS [Internet]. 2020 [cited 2022 Jun 16]. Available from: <https://www.fiji.gov.fj/Media-Centre/News/GRANT-AGREEMENTS-SIGNED-BETWEEN-FIJI-AND-INDONESIA>
- [17] Rustandi C. Indonesia Agrees on Providing Aid to Fiji and Solomon Islands [Internet]. 2020 [cited 2022 Jun 17]. Available from: <https://go.kompas.com/read/2020/12/16/202045174/indonesia-agrees-on-providing-aid-to-fiji-and-solomon-islands?page=all>
- [18] Australian Government. Indonesia COVID-19 Development Response Plan [Internet]. 2020 Oct [cited 2022 Jun 20]. Available from: <https://www.dfat.gov.au/sites/default/files/covid-response-plan-indonesia.pdf>
- [19] Candra IA, Paksi AK. Motivasi Australia Memberikan Bantuan Luar Negeri kepada Indonesia dalam Menangani Penyebaran COVID-19 Tahun 2020-2021. Jurnal Noken:

- Ilmu-Ilmu Sosial. 2021 Dec 25;7(1):14.
- [20] The ASEAN: Covid-19 Vaccines for All [Internet]. [cited 2022 Jul 17]. Available from: <https://asean.org/wp-content/uploads/2021/10/The-ASEAN-Vaccines-For-All-August-Sept-2021.pdf>
- [21] Djalante R, Nurhidayah L, van Minh H, Phuong NTN, Mahendradhata Y, Trias A, et al. COVID-19 and ASEAN responses: Comparative policy analysis. *Progress in Disaster Science*. 2020 Dec;8:100129.
- [22] Declaration of the Special ASEAN Summit on Coronavirus Disease 2019 (COVID-19) [Internet]. 2020 [cited 2022 Jul 2]. Available from: <https://asean.org/declaration-of-the-special-asean-summit-on-coronavirus-disease-2019-covid-19/#:~:text=We%20expressed%20our%20serious%20concerns,Download%20the%20full%20Declaration%20here>
- [23] Regional Cooperation and Integration in Asia and the Pacific: Responding to the COVID-19 Pandemic and “Building Back Better” [Internet]. Manila, Philippines; 2022 Jan. Available from: <https://www.adb.org/publications/regional-cooperation-asia-pacific-responding-covid-19>
- [24] Kementerian Luar Negeri. Mesin Diplomasi ASEAN Terus Bekerja Hadapi COVID-19 [Internet]. 2020 [cited 2022 Jul 22]. Available from: <https://kemlu.go.id/portal/id/read/1188/berita/mesin-diplomasi-asean-terus-bekerja-hadapi-COVID-%2019%3E>
- [25] WHO. COVAX Working for global equitable access to COVID-19 vaccines [Internet]. [cited 2022 Jul 30]. Available from: <https://www.who.int/initiatives/act-accelerator/covax>
- [26] Delanova M. Health Diplomacy as an Instrument of Indonesian Foreign Policy. *Journal Of Global Strategic Studies*. 2021 Dec 29;1(2):78–91.
- [27] World Bank, World Trade Organization. *Global Value Chain Development Report 2019: Technological Innovation, Supply Chain Trade, and Workers in a Globalized World* (English). 2019 Apr.
- [28] Nira FP, Lazuardi F, Ahya F, Putra A, Ulhaq Z, Shidqi A. *INDONESIA'S ECONOMY DIPLOMACY: STRATEGIC OPPORTUNITY IN PPE PRODUCTION IN PANDEMIC ERA*. Vol. 3.
- [29] Peta Sebaran Covid-19 [Internet]. 2022 [cited 2022 Aug 13]. Available from: <https://covid19.go.id/id/peta-sebaran>