

## ADB's Role towards Energy Infrastructure Development:

### Case of Post-COVID-19 Pandemic in Indonesia

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*ADB is a strategic partner for Indonesia in Development. Public sector management and energy are two sectors that the both parties focus on. On the last few years, Indonesia focusses on the climate change, therefore energy infrastructure is being pursued by Indonesia in order to develop the renewable energy. Unfortunately, in the midst of pursuing this goal, Indonesia is facing the COVID-19 Pandemic that affect various sectors in Indonesia. The pandemic gave impacts on infrastructure development in Indonesia, including energy infrastructure. This research examines the ADB's Approach towards Energy Infrastructure Development in Indonesia, specified on case of post-COVID-19 Pandemic. This research applied descriptive qualitative method and used international organization theory for analysis. Moreover, this research used the literature study technique to obtain the relevant data. The result shows Indonesia and ADB have cooperation on handling COVID-19 Pandemic. But, cooperation on infrastructure development still being the priority of both parties. Both parties seek for solution for economic recovery without sacrificing project on infrastructure development, especially on energy sector.*

**Keywords:** ADB; Indonesia; renewable energy; infrastructure development; COVID-19 Pandemic

#### Introduction

The Asian Development Bank, or known as ADB, is Indonesia's development partner that has worked together for more than 50 years. The cooperation that has been established between the two parties covers various sectors such as education, governance, economics management, energy, as well as development in the infrastructure sector. However, when COVID-19 spreads in the world, the focus of assistance from ADB is prioritized on handling COVID-19 and recovering from its impacts.

This research examines how the COVID-19 pandemic has halted the efforts on energy infrastructure development in Indonesia and how the government cooperate with ADB to tackle the problem. Term "infrastructure" in this research defined as a country's physical facilities, such as roads, power plants, and bridges – are very important for regional development (ADB, n.d.). In other words, energy infrastructure development refers to efforts to build and improve infrastructure that handle the flow of energy in Indonesia.

In order to overcome the impact of the pandemic, which does not only affect the health sector, Indonesia is actually cooperating by involving various parties from countries, international organizations, to non-governmental organizations, including ADB. One of these efforts can be seen in a joint program called COVID-19 Active Response and Expenditure Support (CARES) (ADB, 2020)

This research is important to discuss considering that infrastructure development, particularly related to renewable energy management is important to prevent the climate change. Indonesia is the 8<sup>th</sup> country with the biggest global emitter in 2018 where energy sector contributes the most with 243.4 Mt CO<sub>2</sub>e or around 0.51% of global greenhouse gas emissions (Friedrich, Ge, & Pickens, 2020). Moreover, the projects for infrastructure must be pursued since the infrastructure development in Indonesia hasn't fully distributed. In the midst of pursuing infrastructure development, the Indonesian government is facing a pandemic situation which has an impact not only on the health sector but also on other sectors.

Previous researchers have found a link between the energy sector and the pandemic. Lo (2020) wrote that the pandemic caused health facilities to require a larger supply of energy. Then, the lockdown policies contribute in increasing household consumption of energy. He also mentioned that the reduction in air pollution due to COVID-19 and the death rate in COVID-19 sufferers are influenced by air quality, therefore it is important to develop the renewable energy (Lo, 2020).

Then, Eroğlu (2020), found that in addition to having an impact on reducing emissions and household waste, the pandemic also had an impact on renewable energy, where there was a decrease in energy demand, especially in the industrial sector. He also mentioned that investment and incentives in the development of renewable energy are placed in second place after handling COVID-19 (Eroğlu, 2020).

While related to research on the role of ADB in Indonesia, Wijaya et al (2021) identify the role of ADB in Indonesia's economic growth specifically in the period 2016 to 2020. They found that ADB requires Indonesia to change its investment regulations so as not to differentiate between foreign investors and local investors. Furthermore, they found that ADB contributed on various sectors such as infrastructure, agriculture, education, to aid for natural (Palu earthquake) and non-natural disasters (COVID-19 pandemic) (Wijaya, Faadhilah, Rahma, & Firdaus, 2021). However, the research has not been specific in discussing how COVID-19 pandemic affect the development of energy infrastructure in Indonesia and how both parties cooperate to handle it. Therefore, this research will fulfil this gap.

ADB plays an important role in Indonesia's recovery after COVID-19 in this pandemic era. There are changes on cooperation priorities between both parties. Therefore, this research discusses in more depth on how Indonesia and ADB Cooperate tackle this situation.

## Methodology

This paper will focus on research questions regarding ADB's Role on energy infrastructure development before and during the COVID-19 pandemic. This research applies descriptive qualitative approach and uses literature study to obtain relevant data related to the topic.

This study uses the theory of international organizations in analyzing the role of ADB in cooperation with Indonesia on energy infrastructure development. Le Roy Bennett in his work entitled *International Organization* (1997: 3) argues that international organizations have various roles. He mentioned that OI has a role to facilitate cooperation in certain fields that benefit all/most parties. Then, international organization is a forum for making decisions in the context of cooperation. International organization can also be an administrative means of translating those decisions into action. Finally, he mentioned that international organization facilitates various channels of communication between different governments, so that when problems arise, the area of accommodation for these problems can be expanded and easy access will be available (Bennet, 1997).

In this case, it is understandable that ADB performs the role as stated above. It facilitates cooperation on ongoing issues.

## COVID-19 Impact on Infrastructure Development in Indonesia

The COVID-19 pandemic has had an impact on various aspects. One aspect that is also affected is infrastructure. Marketing and

Supply Chain Director of PT Semen Indonesia Group (SIG), Adi Munandir said that infrastructure development was also affected where some infrastructure projects experienced a slowdown and delay. This also affected the condition of the cement industry where in the first semester of 2020, national cement consumption decreased by 7.7 percent compared to the same period in 2019 (Ramli, 2020).

Then, the Ministry of Energy and Mineral Resources (ESDM) recorded a decline in the realization of electricity sub-sector infrastructure development in 2020 in line with the impact of the COVID-19 pandemic. The Director General of Electricity at the Ministry of Energy and Mineral Resources, Rida Mulyana, said that the addition of power plants throughout 2020 was recorded at 2,866.6 Megawatts (MW) or only 55% of the target of 5,209.48 MW (Andi, 2021). While, depends on the data released by ADB, in Indonesia, the state electricity corporation, Perusahaan Listrik Negara (PLN) is facing a 15% decrease in electricity demand for 2020 due to the pandemic (ADB, 2021).

Prior to the reallocation, the PUPR Ministry's budget reached Rp120.21 trillion. The allocation is quite large because infrastructure development is still the focus of President Joko Widodo's administration in the second period. However, due to the COVID-19 pandemic, the PUPR Ministry's budget was cut by IDR 44.58 trillion, leaving IDR 75.63 trillion in 2020 (Yasa, 2020).

## ADB's Engagement in Recovering the Impact of COVID-19 in Indonesia

The policies issued by the government taken as response of the economic impact from COVID-19 pandemic. Data showed that in 2020, the pandemic caused the Indonesian economy to experience a counter production of 2.07 percent (c-to-c), when compared to economic growth in 2019 (BPS, 2021). Then, as many as 29.12 million people (14.28 percent) of the working age population were affected by COVID-19 (BPS, 2020). Moreover, as of September 2020, as many as 27.55 million Indonesians live in poverty. This number is 1.13 million people higher than in March 2020 and an increase of 2.76 million people when compared to the number in September 2019 (BPS, 2021). This situation is indicating that the Indonesian government is overwhelmed in dealing with the effect of COVID-19 pandemic. The policies implemented to date have not been able to significantly suppress the spread of the virus or to keep the Indonesian economy stable. At the end, the budget allocation for infrastructure development was sacrificed to handle the economic impact.

As explained before, Indonesian government had to rearrange their budget allocation for economic recovery. This situation pushed the government to apply for assistance from ADB. In 2020, ADB in its official document, mentioned that they provided assistance of 450 million USD to support Indonesia under PT. Bio Farma, as a supplier of safe and effective vaccines against COVID-19 (ADB, 2021). ADB also approved aid of 1.5 billion USD to Indonesia in the context of

recovery from the impact of COVID-19. The assistance is focused on the fields of public health, employment, and the economy recovery (ADB, 2020).

Furthermore, the Indonesian government also received assistance amounting to 500 million USD or around 7.4 trillion rupiah from the ADB. According to Benita Ainabe, as an ADB's Finance Sector Specialist, this program aims to increase Indonesia's capacity which includes disaster and climate resilience, environmental sustainability, and human capital development, including health and gender equality (Uly, 2020). Not only in the form of loans, ADB and Indonesia through PT. Gojek Indonesia is also collaborating in research on digitalization in Micro, Small and Medium Enterprises (MSMEs). According to ADB's Chief Economist, Yasayuki Sawada, this collaboration is expected to be able to help in finding a path of economic development that is more sustainable and felt by all parties (inclusive), able to improve or increase business resilience, and consumer welfare in situations caused by the COVID-19 pandemic (ADB, 2020).

Still related to COVID-19, in the financial governance aspect, ADB initiated a regional hub in order to strengthen taxation policies and tax administration through knowledge sharing and strengthening cooperation. The Regional Hub will focus on promotion through cooperation involving tax and financial institutions in developing countries, international organizations such as the OECD, IMF, World Bank, and domestic tax associations. In this context, ADB's President, Masatsugu Asakawa, believes that

improving the international Tax Cooperation (ITC) and the domestic resource mobilization (DRM) is one of the keys to successfully achieve the Sustainable Development Goals (SDGs) in a global situation that has been affected by COVID-19 (ADB, 2020).

Meanwhile, according to Sri Mulyani as Minister of Finance, Indonesia's tax revenue ratio is still low which indicates that it is necessary to involve other parties to exchange knowledge and experience in the field of taxation to increase the revenue ratio (Habibah, 2020). This project is a learning process for developing countries, including Indonesia, to be able to create good financial governance.

The explanation before emphasized that both parties cooperate on various sector to handle the impact of pandemic. However, both parties still maintained their focus on infrastructure development, especially on energy sector that will be explained deeper in the next sub-chapter.

### **Indonesia and ADB's Cooperation on Energy Infrastructure**

Before the COVID-19 pandemic hit Indonesia, ADB and Indonesia are already involved in joint projects with a focus area for developing the energy sector. ADB provided support for the Sumba project as The Iconic Green Energy Island. This project was initiated by a non-governmental organization, Hivos that is based in the Netherlands supported by the Ministry of Energy and Mineral Resources of the Republic of Indonesia, exactly the Directorate General of New Renewable Energy and Energy Conservation. Sumba is selected as an Iconic Island

of 100% Renewable Energy based on a study conducted by Hivos collaborated with Winrock International in 2010, which showed that despite Sumba having high renewable energy potential, Sumba has low access to energy with an electrification ratio of only 24.55% (Sumbaiconicisland, 2016). ADB in its official document, approved assistance of 1 billion USD to support this project (ADB, 2016).

In 2015, ADB agreed to provide 500 million USD loan to Indonesia where the funds allocated to support the government's efforts related to energy governance reforms such as reducing subsidies, implementing cost recovery-based tariffs, and optimizing the performance of state-owned companies such as PT. PLN (ADB, 2015). Regarding to this project, ADB approved an assistance of USD 600 million as a yield-based loan provided to PT. PLN in 2017 in order to increase the access of the people of Eastern Indonesia to sustainable energy services (ADB, 2017).

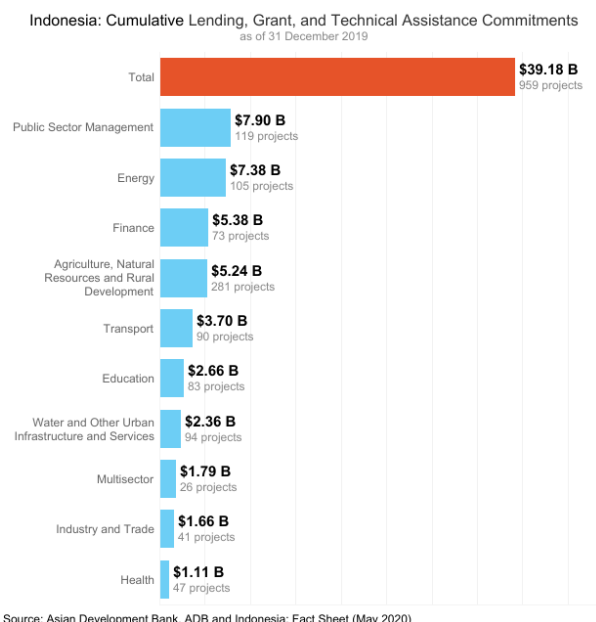
Apart from PT. PLN, in 2020 ADB also provided a loan to one of the Indonesian State-owned Enterprises (SOEs), PT. Geo Dipa Energi (PT. GDE). ADB agreed to provide a loan of 300 million USD which is used to increase the capacity of Geothermal power plants on the island of Java. According to ADB's Director for Indonesia, Winfried F. Wicklein, this project can help Indonesia dealing with climate change issues and improve the quality of Indonesia's electricity system to be more efficient, reliable, and of course sustainable (ADB, 2020).

Furthermore, Indonesia is also involved in ADB's regional projects aimed at

promoting the clean energy transition in the Southeast Asian region. This project cost 2.25 million USD. This project is assessed according to the green recovery program implemented by the government in effort to recover from the COVID-19 crisis, where clean energy development infrastructure is proven success in generating a larger proportion of local jobs and higher local economic benefits (ADB, 2021).

So far, the focus area of cooperation between Indonesia and ADB has been on improving the quality of infrastructure and public management. However, the various infrastructure projects being carried out are projected to support economic activities. In accordance with ADB's main objective of promoting inclusive development, several of the programs above are directed to be distributed not only for the people live in Java, but also outside Java such as infrastructure development in eastern Indonesia such as in the Sumba the Iconic Island project and the results-based assistance provided to PT. PLN.

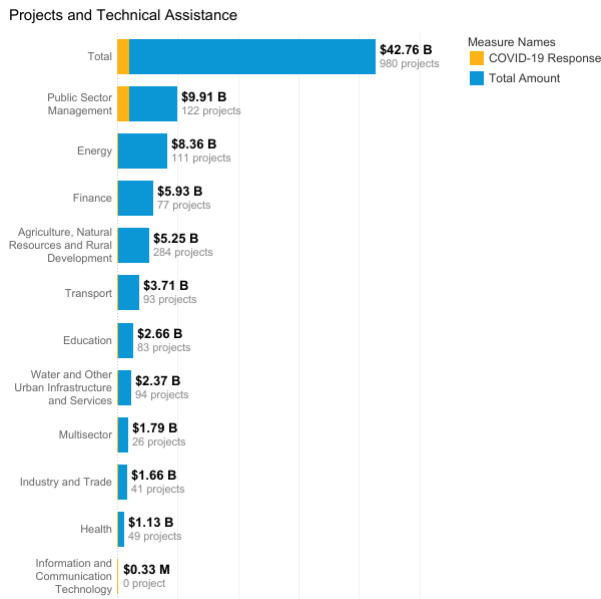
Before the COVID-19 pandemic, the assistances from ADB have more focused on governance and development in the infrastructure sector. This can be seen in the budget allocation of ADB loans, which is displayed in the following diagram.



**Picture 1.** Indonesia’s Loan Allocation from ADB before COVID-19 Pandemic (ADB, 2020)

Based on the diagram above, the health sector is one of the sectors that receives the lowest allocation of assistance when compared to other sectors, especially to public sector and energy development. However, the health sector obtained more attention since the COVID-19 pandemic hit the world, but the number is not significant especially when compared to energy infrastructure development.

The following picture shows the latest budget allocation on Indonesia’s loan from ADB.



**Picture 2.** Current Indonesia’s Loan Allocation from ADB (ADB, 2021)

The diagram shows that there is special allocation intended for handling the consequences caused by COVID-19 pandemic, but the energy sector still gains a fairly large allocation. If comparing to the data per December 2019, the allocation for energy sector increases almost 1 billion USD. This number show that energy sector still becomes the priority of both parties, despite there are changes on public sector and health management.

The nature of the cooperation carried out leads to long-term, inclusive and sustainable cooperation since the collaboration refers to efforts to increase the capacity of both the quality of human resources, infrastructure, and skills in mitigating non-natural disasters where the benefits can be felt after the pandemic ends or even when a pandemic may occur in the future. Furthermore, the target of cooperation is aimed at those who are most affected, such as those who have lost their jobs, as well as business owners

who have been affected by the COVID-19 pandemic.

Moreover, the issues of environment, health, and good financial governance are all included in the main focus of the International Task Force on Global Public Goods. Therefore, the involvement of international partners, which in this case is ADB, can help Indonesia to achieve the goals as seen in ADB’s support in the Sumba the Iconic Island Program.

One of the latest collaborations between Indonesia and ADB is in the form of a USD 150 million loan to support economic recovery due to the pandemic. The Sustainable Development Goals Indonesia One-Green Finance Facility (SIO-GFF), aims to finance at least 10 projects. 70% of the financing will be aimed at supporting green infrastructure and the rest will support the SDGs. The facility will design viable projects to attract funding to complement government spending, including from private, institutional and commercial sources. This project is the first time in Southeast Asia region (ADB, 2022).

The various forms of collaboration above show that ADB as an international organization plays an important role in facilitating cooperation. In the context of this research, the collaboration refers to efforts to recover the economy in Indonesia due to the impact of the pandemic, especially on energy infrastructure development. When the pandemic hit the world, Indonesia face uncertainty and issued emergency response due to anticipate the impact of pandemic. As we all know that, infrastructure development in

Jokowi's regime being priority. But, the pandemic has ruined the plan, that caused the government reallocate their budget for recovery.

The explanation above also emphasized the commitment between two parties in handling the impact of COVID-19 pandemic on energy infrastructure development. As mentioned before, the pandemic had affected the infrastructure development due to the budget for it was cut by the government. Therefore, the loan from ADB helped the government to maintain and support the development of infrastructure. Both sector are important, since COVID-19 pandemic gives impacts on human health, while the energy infrastructure contributes to environmental issues.

As we all know that climate change issue is increasing every year, which means that the world already put more attention toward it. Moreover, based on a report from IQAir 2021, Indonesia has received a bad report regarding air quality conditions in its territory. The report shows that Indonesia is ranked 17th as the most air polluted country in the world with the highest PM2.5 concentration of 34.3  $\mu\text{g}/\text{m}^3$ . This position is the highest in the Southeast Asia region. In fact, this position is still worse when compared to other Asian countries such as China which ranks 22nd (IQAir, 2022).

This situation shows that the Indonesian government needs to take action in order to prevent or overcome environmental damage that occurs. If not, Indonesia may come under pressure from various international actors due to its pollution contribu-

tion. Steps to develop renewable infrastructure or even more environmentally friendly technologies are one of the efforts to overcome this problem. Nevertheless, the Indonesian government has not been able to operate independently, so it requires assistance and cooperation from other parties, one of which is ADB. From the previous findings, it is understandable that even though Indonesia is currently being hit by a pandemic, in fact the allocation of cooperation with ADB is still focused on the sustainable infrastructure development sector. This shows that environmental issues are indeed a top priority for both parties, especially the Indonesian government.

Even though, it should be underlined that Indonesian government has to make sure that the loan is implemented well, appropriate with the target of the development. It is very important to remember that ADB's approach is loan-based approach, not a grant or aid approach. Therefore, Indonesia government has to return those loans before the due date even though the interest rate is low to prevent the financial crisis as what happened in new order era.

## Conclusion

Based on the explanation, it can be concluded that the COVID-19 Pandemic that hit the world gave domino effect on various sector, especially economic sector. This led to influence on energy infrastructure development. This is also shown by the budget allocation that being cut by the government for economic recovery. Finally, this situation pushed the Indonesian government to



engage with ADB for tackling this problem while maintaining the effort to develop infrastructure energy.

The health sector, which was previously not a priority, is at present receiving more attention. Nevertheless, cooperation in the energy sector remains a priority. Both parties may make adjustments to the cooperation sector that may be optimized in reducing the impact of the COVID-19 pandemic. However, in the end the infrastructure sector remains the priority. In fact, the commitment to cooperation in the energy sector has been reaffirmed even in the midst of a pandemic.

However, from the various changes in cooperation, ADB always inserts a development agenda on it, that the cooperation carried out provides value-added (capacity building) for partner countries (Indonesia) whose benefits can be felt for long term. For Indonesia, ADB is an international organization that has important roles, especially during the pandemic. The existence of international organization such as ADB is able to facilitate cooperation in tackling certain issues. The most important thing is that the development of energy infrastructure and pandemic recovery have to run hand in hand to get out of the crisis. Finally, this research is a pre-liminary research since the data and the projects discussed in this article is still ongoing. Therefore, the next researcher has opportunity to deepen the research on this topic.

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