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DEBT SWAP WITH COAL-FIRED POWER PLANT RETIREMENT

Fiscal Maneuvers in Support of Energy Transition Ambitions

CELIOS **2024**

POLICY BRIEF

DEBT SWAP WITH COAL-FIRED POWER PLANT RETIREMENT

Fiscal Maneuvers in Support of Energy Transition Ambitions

Authors
Bhima Yudhistira Adhinegara
M. Bakhrul Fikri
Santi Lee

Translators
Muhammad Zulfikar Rakhmat

Designer
Mazdan Maftukha Assyayuti

Publisher
CELIOS
(Center of Economic and Law Studies)
An Independent Think Tank in the Fields of Economics and Public Policy

Suggested Citation
Adhinegara, et al. (2024). Debt Swap with Coal-Fired Power Plant Retirement: Fiscal Maneuvers in Support of Energy Transition Ambitions. Jakarta: Center of Economic and Law Studies. Report. Accessed at: www.celios.co.id

Prabowo's Commitment to Phasing Out Coal-Fired Power Plants within 15 Years

Photo Credit: Biro Pers Setpres 2024
Prabowo attending the G20 summit in Brazil, November 2024.

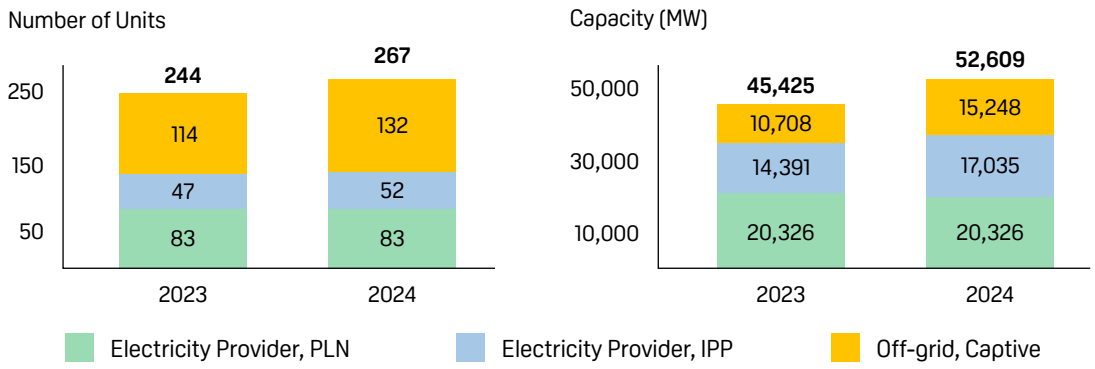
The discourse surrounding the early retirement of coal-fired power plants (PLTU) in Indonesia was recently reignited by Prabowo during the G20 summit in Brazil on November 19, 2024.[1] Not only did he focus on the future of coal-fired plants, but he also emphasized that within the next 15 years, all fossil-fuel-based power plants will be phased out and replaced with renewable energy plants, with a combined capacity of more than 75 gigawatts. This ambitious target aims for Indonesia to reach net-zero emissions (NZE) by 2050, ten years ahead of the previous target set for 2060.

KThe commitment to early coal power plant retirements is not a new concept. Previously, this had already been integrated into the Just Energy Transition Partnership (JETP) under the Comprehensive Investment and Policy Plan (CIPP). Specifically, the Cirebon-1 and Pelabuhan Ratu plants were included in the early retirement agenda, slated to cease operations before the expiration of their respective contracts in 2035 and 2037.[2] However, as of December 2024, both plants remain in the negotiation phase. Furthermore, a new plant, Cirebon-2, recently began operations alongside Cirebon-1. This suggests that the commitment to coal plant retirements, in the absence of concrete steps such as a clear shortlist and financing plan, may primarily serve as a strategy to bolster Prabowo's international standing rather than reflecting substantial progress on the ground.

1 https://www.presidenri.go.id/siaran-pers/sesi-ketiga-ktt-g20-brasil-presiden-prabowo-tegaskan-komitmen-indonesia-pada-pembangunan-berkelanjutan-dan-transisi-energi/.

2 https://jetp-id.org/storage/official-jetp-cipp-2023-vshare_f_id-1703731538.pdf.

Graph. Coal-Fired Power Plants in Indonesia (Units and Installed Capacity)



Source: G.EM and CREA, 2024

Breaking Free from the Constrained Fiscal Space for Energy Transition

The financial requirements for Indonesia's energy transition are substantial. The estimated cost to meet emissions reduction targets across all energy sectors is US$ 246.3 billion (equivalent to IDR3,500 trillion).[3] Specifically, the cost for the early retirement of coal-fired power plants (PLTU) off-grid by 2050 is projected to be IDR444 trillion.[4] Consequently, funding support from various sources is crucial to meet these needs.

At the same time, the government's fiscal space is increasingly limited. The projected state budget deficit (APBN) for 2025 is expected to reach IDR649 trillion, or 2.82% of GDP, nearing the critical 3% threshold defined by the State Finance Law (Law No. 17 of 2003). On top of that, the burden of debt interest payments is significant, compounded by numerous government programs outside of the energy transition agenda. Moreover, the government faces an average debt maturity payment obligation of IDR800 trillion per year from 2025 to 2029.

Additionally, the interest payments on debt are projected to exceed IDR552 trillion in 2025 and could rise to IDR620 trillion by the end of Prabowo's term. Priority programs such as the Free Nutritious Meals (MBG) initiative also pose significant competition to energy transition goals. According to a study by CELIOS[5], the 100% implementation of the MBG scheme by 2029 would push total government spending to IDR4,962 trillion. The budget deficit in 2029 could expand to 3.34%, violating the APBN's maximum deficit limit.

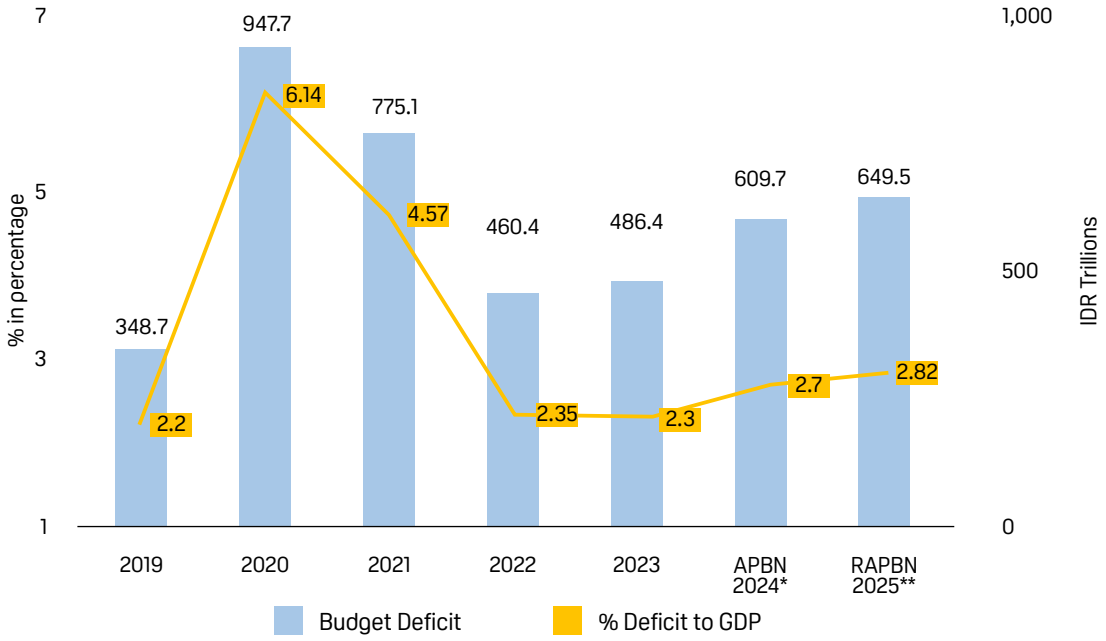
Given these fiscal constraints, the government must adopt creative and unconventional approaches to financing to maintain its commitment to phasing out coal-fired power plants. Debt swap could be a viable and innovative financing tool worth exploring.

3 https://fiskal.kemenkeu.go.id/baca/2023/09/29/4465-menkeu-kembali-ajak-dunia-dukung-transisi-menuju-energi-bersih.

4 A 2022 study by IESR and the University of Maryland calculated the cost required for the retirement of coal-fired power plants (PLTU) until 2050.

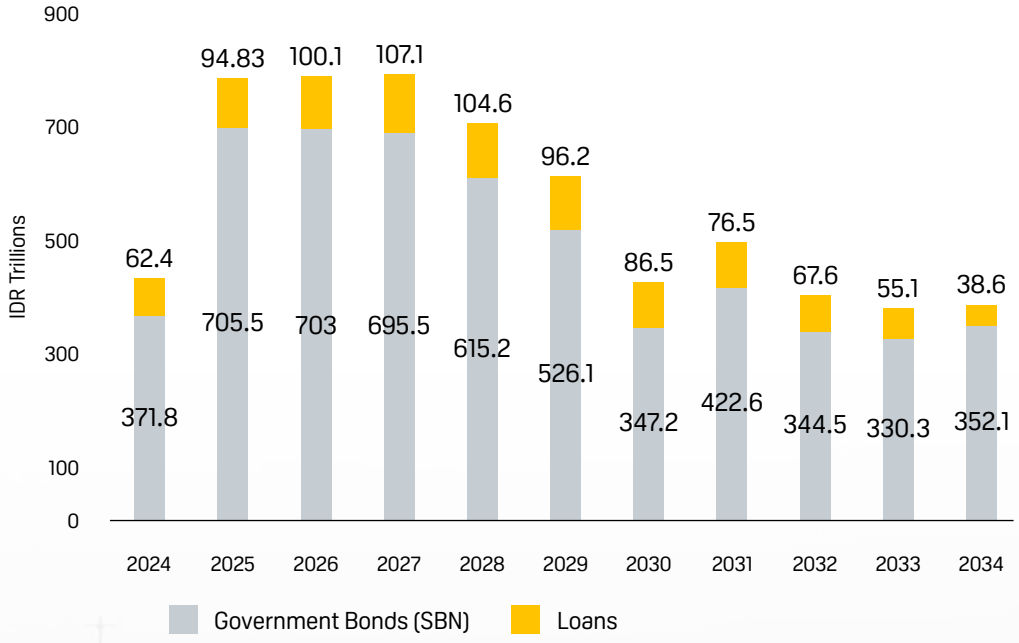
5 Nailul Huda and Dyah Ayu F, *Makan Bergizi Gratis: Dampak Ekonomi dan Konsekuensi Desit APBN* (Jakarta: Center of Economic and Law Studies, 2024), pp. 17-18.

Graph. Development of the Budget Deficit (2019-2025)



Source: 2024 RAPBN Financial Note, processed
*Projection of the 2024 Budget Deficit
**Projection of the 2025 RAPBN Deficit

Graph. Government Debt Maturity 2025-2029



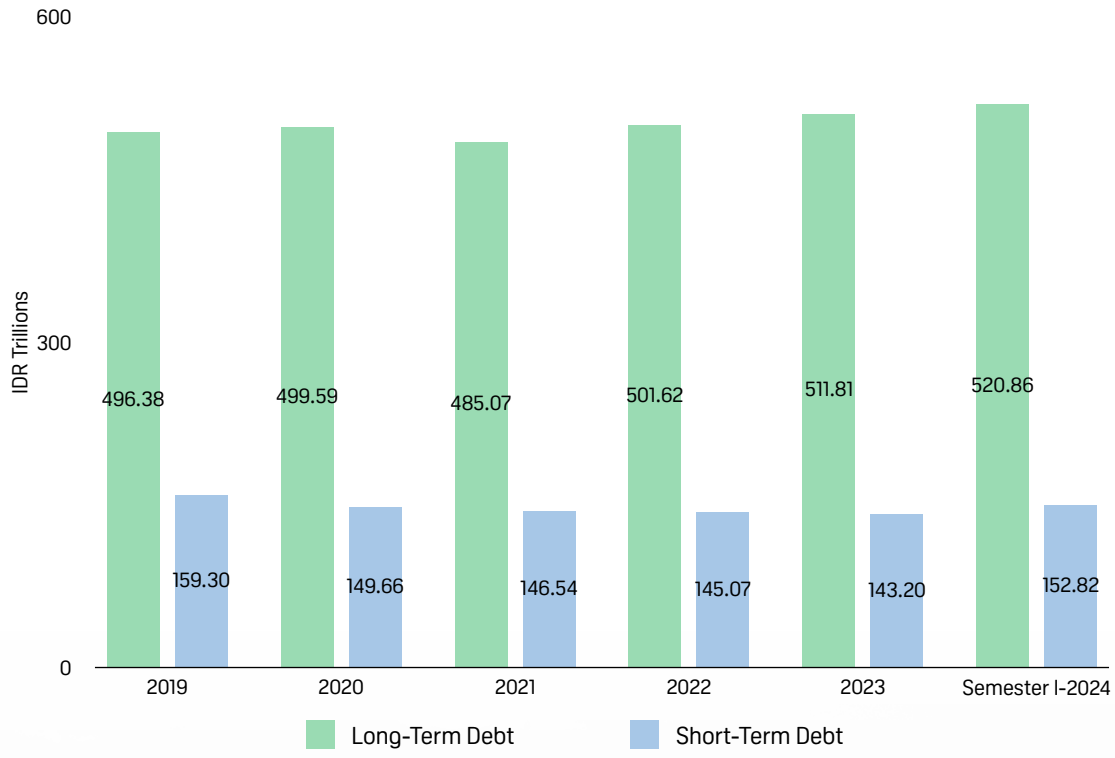
Source: Ministry of Finance, 2024.

In addition to the constraints on fiscal space, challenges in financing cooperation for the early retirement of coal-fired power plants are exacerbated by the financial situation of PLN (State Electricity Company). PLN's total debt burden stands at IDR396 trillion. Despite successfully reducing its debt by IDR50 trillion over four years and recording profits for three consecutive years, PLN's capacity to fund the retirement of coal plants remains limited.

PLN is also still heavily reliant on subsidies and compensation funds from the state budget, making business-to-business schemes for coal plant retirements less attractive to investors. Furthermore, PLN's over-leveraged financial position makes it nearly impossible to secure new low-interest loans for early coal plant retirement.

Given the fiscal constraints of both the state budget and PLN's financial condition, there is a need to explore new models of cooperation, such as debt swap arrangements. From a rational standpoint, developed countries would also benefit from such financing models, as debt swap schemes could be counted towards their climate financing commitments. On the other hand, the government could utilize debt repayment obligations for more beneficial programs, creating a win-win scenario for both parties.

Graph. PLN Debt 2019-2024



Source: PLN Financial Statements, 2019-2024.

What is Debt Swap?

According to Iolanda Fresnillo, a debt swap is a financial instrument that offers debt reduction on the condition that the debtor agrees to invest the reallocated resources into specific sectors, such as education, health, climate, or the environment.[6] Another mechanism involves the issuance of new debt securities by the borrowing country, replacing the old debt, with a commitment that the funds raised will be used to address climate change through performance-based incentives. These incentives may include lower interest rates, grants, carbon offset compensation for services, and other related benefits.

Another advantage of debt swaps is their ability to reduce the fiscal burden on the borrowing country. The weight of fiscal constraints often serves as a barrier to enhancing the implementation of Sustainable Development Goals (SDGs), particularly in sectors such as energy.[7] By alleviating fiscal pressure, the government gains more budgetary space to allocate funds for energy transition projects.

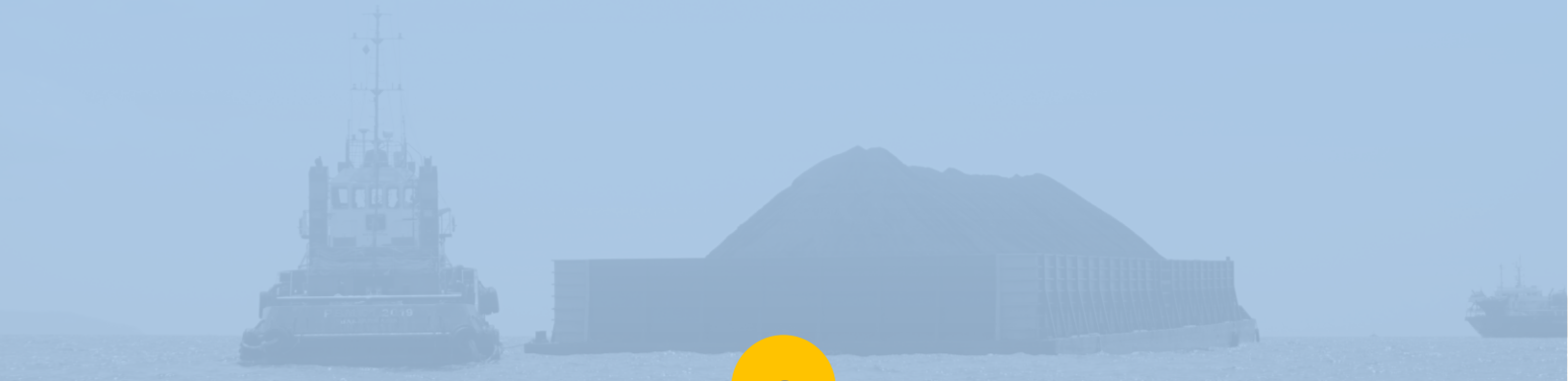
The debt swap scheme seems particularly appropriate for the early retirement of coal-fired power plants, which is often viewed as a high-risk and complex project, deterring private financial institutions from participating. Meanwhile, energy transition financing initiatives like JETP (Just Energy Transition Partnership) tend to focus more on the development of renewable energy capacity rather than consistently funding the acceleration of coal plant retirements.

Following President Prabowo's visit in November 2024, accompanied by Hashim Djojohadikusumo, to various countries and forums, there was no specific discussion regarding commitments or financing for coal plant retirements. The visit to China, for example, resulted in an agreement between PT PLN (Persero) and two large Chinese companies, Huawei and SDIC Power, focusing on electric vehicle charging infrastructure, hybrid power plants, and hydropower plants in Membramo, Papua. Similarly, at COP29, Indonesia emphasized carbon trading. It seems somewhat odd to leap towards renewable energy and a commitment to retire coal plants when no concrete cooperation outside of JETP has been established for the retirement of these plants. This may be due to concerns about waning investor interest in funding coal plant retirements. Regular market mechanisms have proven ineffective in funding such retirements. On the other hand, debt swap mechanisms have a social-assistance dimension, with several programs traditionally included in debt swaps being non-profit-oriented, such as forest and coral reef conservation or educational development.

6 Iolanda Fresnilo, 2023. Miracle or mirage?: Are debt swaps really a silver bullet?. Eurodad.

7 https://www.imf.org/external/lang/indonesian/np/blog/2018/042718i.pdf.

The potential for a debt swap to finance the retirement of coal-fired power plants (PLTU) amounts to IDR94.8 trillion in 2025. This figure originates from the negotiation of maturing debt in the form of loans, both from bilateral creditors and multilateral institutions. This moment presents a valuable opportunity for the government to effectively leverage climate debt from developed countries.



Claiming Climate Debt from Developed Countries

At the COP29 meeting in Azerbaijan, developed countries agreed to provide climate financing assistance amounting to US$ 300 billion (equivalent to IDR4,800 trillion).[8] While this figure is substantial, it is relatively small compared to the US$ 5 trillion per year in climate debt demanded by civil society and developing countries during the COP29 forum.[9]

However, there is an opportunity within the COP29 agreement, specifically the New Collective Quantified Goal on Climate Finance (NCQG), which could provide financial support, particularly in forms other than new loans.[10] The NCQG represents a commitment that must be promptly claimed, monitored, and ensured to benefit the interests of the recipient countries. If the implementation of the NCQG takes the form of grants, it would significantly alleviate the fiscal burdens of developing nations. However, alternative options such as debt cancellation and debt swaps (where debt is exchanged for specific programs) are also viable.

Historically, developed countries bear the largest responsibility for carbon emissions, which is why they are often referred to as having "climate debt." A study by Fanning and Hickle (2023)[11] considering a scenario in which all countries undergo decarbonization by 2050 to meet the target of keeping global temperatures below 1.5°C, shows that developed countries will still contribute at least three times more to the accumulated emissions since 1960 compared to developing and low-income countries (Global South). As such, developed nations have both a moral and financial responsibility toward developing countries.

As outlined in Article 2C of the Paris Agreement, every country must specifically integrate climate change responses into their planning and development policies. This includes encouraging financing that supports emissions reductions and enhances resilience to the impacts of climate change.

Furthermore, Article 9 of the Paris Agreement mandates that developed countries provide climate finance to developing nations, totaling US$ 100 billion annually from 2020 to 2025 to assist developing countries in implementing mitigation and adaptation actions to combat climate change.

Discussions involving stakeholders from both Parties and non-Parties at COP29 concluded that the required climate financing is estimated at US$ 1.1 – 1.3 trillion per year.[12] This figure stems from the 2021 "Determination of the Needs of Developing Countries" (NDR) report, which considers the climate financing needs outlined in the latest Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) of developing countries.

Notably, the 2021 NDR report indicates that developing countries require approximately US$ 6 trillion to implement their NDCs by 2030.[13] However, this figure does not fully account for the necessary funds for climate adaptation actions. Therefore, it is projected that developed countries will need to provide

8 https://www.euronews.com/business/2024/11/28/baku-cop29-climate-event-ends-with-300bn-deal-amid-calls-for-more-action.

9 https://climatenetwork.org/2024/09/20/us5trillion-owed-to-global-south-by-global-north-due-to-the-climate-crisis/.

10 https://unfccc.int/NCQG.

11 https://www.nature.com/articles/s41893-023-01130-8.

12 https://irid.or.id/ncqg-sebuah-upaya-untuk-mendukung-negara-berkembang-berkontribusi-pada-pencapaian-tujuan-persetujuan-paris/.

13 https://unfccc.int/news/from-billions-to-trillions-setting-a-new-goal-on-climate-finance.

US$ 5 trillion (equivalent to IDR77,500 trillion, based on an exchange rate of 15,500) annually until 2030 to assist developing countries.[14] This amount does not include private sector financing, such as from banks and financial markets.

As a form of checks and balances, developing countries are also required to enhance their capacity in terms of financing and transparently report the need for aid. In other words, there must be sufficient financial flows to support climate change mitigation and adaptation strategies in more vulnerable and less capable countries.

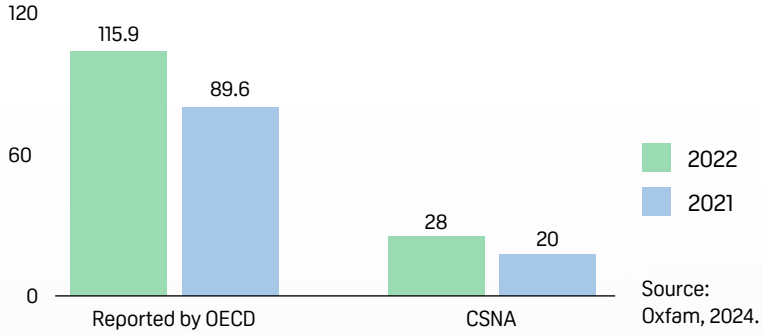
Unfortunately, developed countries have not yet fully committed to assisting developing nations with financing, as evidenced by the actual funding realization for 2021-2022, which amounted to only US$ 28-35 billion, far below the total target of US$ 100 billion.[15]

In the context of financing cooperation between developed countries and Indonesia in the field of energy transition, the Just Energy Transition Partnership (JETP) has proven to present various challenges. The JETP financing mechanism, which promises US$ 21.6 billion to support Indonesia's energy transition, could potentially carry greater risks in terms of scale.

A large portion of the JETP financing is still dominated by loans (both concessional and non-concessional), totaling around US$ 21.3 billion. Meanwhile, the amount allocated as grants is only US$ 295 million, which accounts for just 1.37% of the total promised funding (Rakhmat & Purnama, 2024). Moreover, the agenda set by developed countries within JETP also presents problems. For instance, the U.S. and Japan are pushing for the adoption of costly technologies such as Carbon Capture and Storage (CCS/CCUS) to extend the lifespan of coal-fired power plants, as well as hydrogen, which is closely linked to natural gas. These expensive technologies may obscure the main objective of JETP: accelerating the phase-out of coal by retiring coal-fired power plants.

Therefore, the JETP financing scheme should be seen as an opportunity for debt forgiveness, enabling the government to fund its energy transition agenda without accumulating new debt. The JETP Secretariat and Working Group should incorporate a list of programs eligible for financing through debt swap scenarios in the revision of the Comprehensive Investment and Policy Plan (CIPP) II.

Chart. Claims of Climate Finance by Developed Countries and Climate-Specific Net Assistance (CSNA)[16]



Source: Oxfam, 2024.

14 https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2023/#:~:text=Climate%20finance%20is%20on%20the,renewable%20energy%20and%20transport%20sectors.

15 Previously, the OECD claimed that developed countries had secured funding of US$115 billion in 2021-2022. However, this claim was contradicted by an Oxfam study, which highlighted that loans were more dominant than actual aid in the form of grants and debt cancellation.

16 Oxfam reported in June 2024 that the gap between the climate finance commitments claimed by the OECD and the actual climate finance aid was quite significant. This indicates that developed countries have not been serious in assisting developing and poor nations in addressing the climate crisis. For more details, see: https://webassets.oxfamamerica.org/media/documents/Climate_Finance_Short-Changed_2024_update_CSNA_Estimate_Methodology_Note.pdf.

The History of Debt Swap in Indonesia

Debt swap is not a new concept in Indonesia. Several debt exchange programs between the Indonesian government and bilateral creditors have been carried out in the past. In 2005, Indonesia and Italy agreed to convert Indonesia's debt of US$ 32 million into a debt swap, which could be used to aid reconstruction efforts in the provinces of Aceh and North Sumatra, which were affected by the tsunami. In 2011, the Indonesian government and the United States entered into a debt-for-nature swap agreement under the Tropical Forest Conservation Act, valued at US$ 28.5 million (IDR441.7 billion).[17] The loan restructuring was implemented by redirecting the debt to fund biodiversity and tropical forest conservation programs in Kalimantan.

A similar debt swap scheme was carried out on July 3, 2024, with Indonesia redirecting US$ 35 million in debt toward coral reef ecosystem conservation.[18] In other words, the Indonesian government has the potential to apply the debt swap scheme to finance the early retirement of coal-fired power plants (PLTU), which would be part of the country's climate change mitigation efforts.

In addition to the United States, Germany was the first country to initiate a debt swap scheme with Indonesia. On December 3, 2002, Indonesia and Germany signed an agreement in which Germany would cancel a debt claim of EUR 25.6 million and the associated interest payments. In return, Indonesia committed to mobilizing half of this amount (EUR 12.8 million) to fund advanced teacher training from 2003 to 2005.

Recently, the United States also agreed to forgive US$ 35 million (approximately IDR542.5 billion) of Indonesia's debt over the next nine years. In exchange, Indonesia committed to restoring and conserving coral reefs, which are considered by experts to be the most biodiverse marine ecosystems in the world.

17 https://www.ekon.go.id/publikasi/detail/2871/pemerintah-indonesia-dan-amerika-umumkan-debt-swap-untuk-konservasi-hutan-di-kalimantan.

18 https://id.usembassy.gov/united-states-and-indonesia-sign-landmark-debt-for-nature-swap-to-protect-coral-reef-ecosystems/#:~:text=The%20United%20States%2C%20Indonesia%2C%20and,investment%20in%20coral%20reef%20conservation.

The Bridgetown Initiative and Debt Reduction Initiatives for Developing Countries

Photo: Yves Herman/Pool via AP
Prime Minister of Barbados Mia Amor Mottley delivering a speech at the UN Climate Change Conference COP26 in Glasgow, Scotland, on November 1, 2021.

The Bridgetown Initiative is a proposal aimed at reforming the development financing framework, particularly focusing on how wealthy countries can assist poorer and developing nations in addressing and adapting to climate change.[19] One of the proponents of the Bridgetown Initiative is Barbados, represented by Prime Minister Mia Amor Mottley. Like Indonesia, island nations such as Barbados are significantly impacted by the climate crisis, such as rising sea levels, with 90% of their energy mix still reliant on fossil fuels.

The primary goal of the Bridgetown Initiative is to prevent developing countries from falling into debt crises when their loans inevitably escalate due to consecutive natural disasters like floods, droughts, and storms. The commitment from the Indonesian government, international institutions, and other initiatives like the Bridgetown Initiative demonstrates that debt swap mechanisms can and should be applied to energy transition projects.

It is not inconceivable that if Indonesia successfully implements debt swap schemes for the early retirement of coal-fired power plants, member countries of the Bridgetown Initiative might invite Indonesia to join and use it as a model for the successful implementation of such strategies by developing nations.

19 https://www.eib.org/en/stories/development-finance.

The Role of Indonesia's Collective Diplomacy in the G77

Since its establishment in 1964, Indonesia has been a member of the Group of 77 (G77), a coalition of developing countries. Indonesia can leverage the G77, alongside other groups like the G20 and BRICS, to promote debt swap schemes for the early retirement of coal-fired power plants (PLTU). Nearly all G77 member countries share concerns regarding the inequities between developed and developing nations, or the Global North versus the Global South.

The narrative of development and funding inequality can be translated into concrete actions within various multilateral forums. For example, Indonesia can pressure developed nations to engage in discussions about debt swap and debt cancellation. Through collective action among G77 members or South-South cooperation, pressure on developed nations intensifies, benefiting not only Indonesia but also other developing and low-income nations in accelerating the energy transition.

Example of Debt Swap for Energy Transition: Germany and Egypt

Germany has been a significant creditor nation that has entered into numerous debt swap agreements aimed at energy transition. Germany's bilateral debt swap program targets countries that are indebted but not overly indebted. In such agreements, bilateral countries can replace a portion of their debt with an investment commitment of an equivalent amount in social-ecological transformation.

In the case of debt swaps for climate, both parties agree on concrete climate mitigation or adaptation projects to be executed using the allocated funds. Debt repayment to Germany is only considered complete once the projects are successfully implemented. This approach allows Germany to offer total debt conversions to partner countries, reaching up to EUR 150 million annually.

A notable debt swap agreement between Egypt and Germany strengthens Egypt's national electricity grid, operated by the Egyptian Electricity Transmission Company (EETC). In June 2023, Egypt and Germany signed a debt swap agreement valued at EUR 54 million.

The debt-swap agreement between Germany and Egypt is part of Egypt's Nexus of Water, Food, and Energy (NWFE) program, a national climate strategy for 2050. The program includes nine projects with an estimated total cost of US$ 14.7 billion.[20] These projects span several sectors, including energy, water, food security, transportation, and the environment, all of which are outlined in the second E-PACT agreement.

20 https://www.ifad.org/en/web/latest/-/ifad-to-lead-the-food-pillar-of-egypt-s-nexus-for-water-food-and-energy-nwfe-.

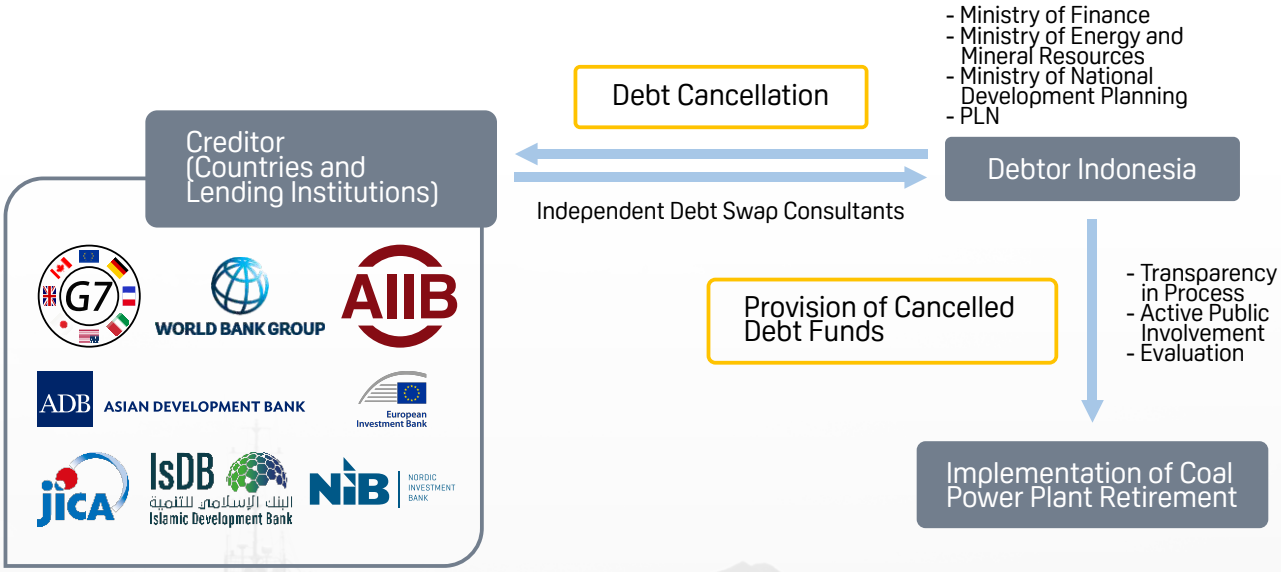
This bold initiative has been praised by various developed countries and successfully mobilized funding, including grants, concessional financing, and a debt swap amounting to €100 million, or approximately US$ 103.82 million from Germany.[21]
A significant portion of this funding is directed toward renewable energy projects through a mechanism for early retirement of 5 Gigawatts (GW) of aging gas-fired power plants, which will be replaced with renewable energy plants having a capacity of 10 GW, primarily through wind power.

The debt conversion will finance two transmission lines connecting the new wind power plants (Red Sea and Amunet wind farms, both with an output of 500 Megawatts each) to the national grid. Strengthening Egypt's electricity grid will enhance supply security and reduce greenhouse gas emissions. This will make a substantial contribution to Egypt's energy transition by integrating renewable energy into the national electricity grid.

Mechanism of Debt Swap for Coal Power Plant (PLTU) Retirement

In a debt swap scheme, the creditor (whether a country or a lending institution) agrees to cancel the debt owed by the debtor country (Indonesia), with the funds being redirected towards a mutually agreed-upon purpose. In this case, the funds would be allocated to the retirement of coal power plants (PLTU).

Chart. Debt Swap Scheme for Coal Power Plant Retirement



21 https://www.reuters.com/business/cop/cop27-host-egypt-aims-share-climate-finance-model-2022-11-18/.

The debt swap process involves negotiations between the creditor (whether a country or lending institution) and the debtor government (Indonesia). The type of debt subject to negotiation is typically loan-based debt, not debt securities. After discussions between both parties, a mutually agreed program is identified, which will serve as the basis for swapping the debt obligation. If both sides agree on an energy transition program, such as the retirement of coal power plants (PLTU), an evaluation of the asset values of the coal plants is then conducted.

An independent debt swap consultant is required to facilitate negotiations between the creditor and the debtor. This entity plays a crucial role in both the planning and execution stages, helping to design the technical framework and identifying projects eligible for financing from the debt cancellation proceeds. Additionally, during the implementation and evaluation phases, a verification agency is needed to ensure the proper and transparent utilization of the debt cancellation funds, ensuring the funds are used according to the intended purpose. The verification agency will also oversee and evaluate the program's implementation, providing periodic reports to the creditor and the public regarding the effectiveness of fund usage.

As a concrete step, Indonesia's Ministry of Energy and Mineral Resources (ESDM), the Ministry of Finance, and PLN (the state-owned electricity company) are preparing a shortlist of coal power plants to be considered for the debt swap with bilateral or multilateral creditors. The following table shows a partial shortlist of PLN's coal power plants based on criteria such as capacity, high costs, and significant carbon emissions impact.

The government can carry out a fair valuation of these coal plants, adopting the principle that these plants are "stranded assets" whose value will decline over time due to their risk to climate goals. By applying a fair, independent asset valuation, the creditors will assess the feasibility of swapping the PLTU assets for the government's debt obligations. A fair valuation of the assets also ensures that the debt risk assessment more accurately reflects the real risks associated with each coal plant.

Supporting regulations for the debt swap process are also essential to ensure that the coal plant retirement process is legally recognized and does not result in any perceived loss to the state. Regulatory support is a key factor in ensuring that all stakeholders support the accelerated transition to renewable energy. Additionally, the government could offer a debt swap package that includes the development of transmission grid infrastructure to complement the retirement of the coal plants. From the case of Cirebon-1, which faced delays due to regulatory complexities, it is evident that the debt swap mechanism needs thorough preparation. Care must be taken to avoid internal governmental obstacles that could arise, as these might become more challenging than issues posed by the creditors.

Table. Shortlist of Coal Power Plants Eligible for Debt Swap

No	PLTU	Owner	Province	Grid	Total Capacity (MW)	CO2 Tonnes per Year	Cost (IDR Billion per Twh)	COD (Start of Operation)	Current Age
1	Suralaya	PLN	Banten	Java-Bali	4,025	20.51	271.9	2009	16
2	Paiton	PLN	East Java	Java-Bali	1,460	7.4	79	2011	14
3	Pelabuhan Ratu	PLN	West Java	Java-Bali	1,050	5.16	717.5	2013	12
4	Indramayu	PLN	West Java	Java-Bali	990	4.87	534.1	2010	15
5	Pangkalan Susu	PLN	North Sumatra	Sumatra	840	4.22	414.9	2015	10
6	Tanjung Awar-Awar	PLN	East Java	Java-Bali	700	3.44	275.1	2012	13
7	Nagan Raya	PLN	Aceh	Sumatra	620	3.14	122.2	2023	2
8	Pacitan	PLN	East Java	Java-Bali	630	3.1	978.6	2011	14
9	Rembang	PLN	Central Java	Java-Bali	630	3.1	219.5	2011	14
10	Labuan	PLN	Banten	Java-Bali	600	2.95	634.5	2009	16
11	Adipala	PLN	Central Java	Java-Bali	660	2.61	975	2015	10
12	Bukit Asam	PLN	South Sumatra	Sumatra	260	1.54	217.9	1987	38
13	Labuhan Angin	PLN	North Sumatra	Sumatra	230	1.29	177.4	2008	17
14	Teluk Sirih	PLN	West Sumatra	Sumatra	224	1.19	197	2013	12
15	Ombilin	PLN	West Sumatra	Sumatra	200	1.15	175.7	1996	29
16	Tenayan	PLN	Riau	Sumatra	220	1.08	173.8	2016	9
17	Tarahan	PLN	Lampung	Sumatra	200	1.07	130.3	2008	17
18	Sebalang	PLN	Lampung	Sumatra	200	0.97	199.2	2015	10
19	Air Anyir	PLN	Bangka Belitung	Sumatra	60	0.32	67.9	2014	11

Source: GEM, CREA 2024, processed
*Cost in IDR Billion per TWh uses an exchange rate conversion of 16,000 IDR per US$
**PLTU age until 2025

Challenges of Debt Swap

1. **Limited Community and Civil Society Participation:** One of the primary concerns surrounding the debt swap mechanism is the lack of involvement from local communities and civil society. This has raised fears about the negative economic impact on workers, local communities, and businesses, particularly those dependent on the coal industry. Many are worried that the energy transition could lead to job losses and a decline in income for those whose livelihoods are tied to coal-based industries.

2. **Lack of Transparency and Accountability:** There is significant skepticism regarding the transparency and accountability of the debt swap process. Many fear that the government may not equitably distribute the benefits of the energy transition, with certain groups or regions potentially being left behind. Without a clear framework for monitoring and ensuring fair distribution, the effectiveness of the scheme may be compromised.

3. **Risk of Greenwashing:** Another challenge is the risk of greenwashing, as the environmental and health benefits of energy transition projects are often presented in qualitative terms. Countries may misrepresent or overstate the progress of their transition efforts, presenting themselves as environmentally friendly while failing to meet actual sustainability goals. This could mislead both the public and international stakeholders, undermining the credibility of the debt swap mechanism.

4. Keterbatasan dana *debt swap* dapat saja hanya bersifat simbolik sehingga dana yang didapatkan dari skema ini tidak signifikan dalam menurunkan beban fiskal negara maupun berkontribusi terhadap transisi energi.

Policy Recommendations

1. **Adopt Debt Swap for Coal Power Plant Retirement:** The Indonesian government should explore the debt swap scheme specifically for coal power plant retirement. This could be achieved by studying and adapting successful debt swap models from other countries, such as the ones implemented by Germany and Egypt. This approach would allow Indonesia to align its energy transition goals with its financial obligations.

2. **Establish a Debt Swap Negotiation Team:** A dedicated team should be formed under the coordination of the Ministry of Finance, with members from the Ministry of Energy and Mineral Resources (ESDM), Ministry of State-Owned Enterprises (BUMN), Ministry of Coordinating Infrastructure and Regional Development, PLN, and the JETP Secretariat. This team would be tasked with overseeing negotiations and ensuring a well-structured framework for debt swap agreements related to coal power plant retirements.

3. **Inclusive Debt Swap Policy Development:** It is crucial to design debt swap policies inclusively by involving local communities, workers, and civil society throughout the process, from planning to decision-making. This will help mitigate the risks of lack of transparency and ensure that the impacts on local populations—especially those reliant on coal power plants for their livelihoods—are carefully considered and addressed.

4 **Transparency and Accountability in Debt Swap Management.** Transparency in fund management and strict accountability for program implementation are essential to ensure that the debt swap scheme targets its objectives within the framework of a just energy transition. The government must ensure that the entire process is publicly accessible, with platforms or websites tracking the progress of the debt swap initiative from the outset.

5 **Technical Consultancy and Avoiding Misallocation.** Developed countries or creditor institutions involved in the debt swap should open up technical consultancy procurement. This would prevent funds allocated for the debt swap from being consumed by technical preparation costs rather than being directed towards the core objective of retiring coal power plants.

6 **Clear and Measurable Environmental Impact Indicators.** The government and relevant stakeholders must establish clear, measurable indicators for environmental impact to avoid greenwashing in the implementation of debt swaps. Greenwashing here refers to a situation where creditors fund only the planning or feasibility study stages of coal power plant retirement but claim to have completed the entire decommissioning process.

7 **Blended Finance Mechanism for Sustainable Funding.** The debt swap scheme should also be supported by a blended finance mechanism, involving both public and private sectors, alongside access to international funding sources such as the Green Climate Fund. This would help ensure stable and sustainable funding for the energy transition.

8 **International Advocacy and Multilateral Cooperation.** The government must take a proactive stance in international forums, such as COP, to advocate for a fairer and more inclusive debt swap scheme. Multilateral cooperation platforms should also be established with other developing countries to strengthen Indonesia's negotiating position in climate financing discussions.

9 **Sustainable and Cost-Effective Renewable Energy Technology.** The debt swap scheme must prioritize cost-efficient, long-term sustainable renewable energy technologies. Community-based renewable energy technologies should be emphasized, and technologies such as CCS/CCUS and co-firing with biomass should be excluded from the energy transition agenda. The primary focus of the debt swap should remain on the early retirement of coal power plants, rather than prolonging their lifespan with expensive, inefficient technologies.

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Appendices

Table. Foreign Creditor Countries of Indonesia's Foreign Debt

Country	Total Loan to the Indonesian Government (Million US$)
Japan	8,424
Germany	4,503
France	3,779
USA (Others such as Canada, etc.)	1,613
Spain	1,332
China	1,049
Singapore	789
South Korea	404
Other European Countries	115

Source: SULNI Bank Indonesia, November 2024.

Table. International Institutions as Foreign Creditors of Indonesia's Foreign Debt

Creditor Institution	Total Loan to the Indonesian Government (Million US$)
IBRD	21,636
ADB	11,203
AIIB	3,021
IDB	1,287
IFAD	288
Lainnya	141,351

Source: SULNI Bank Indonesia, November 2024.

Appendices

Table. Central Government Expenditures by Type 2015-2025
(in IDR Trillion)

Expenditure Type	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024*	2025**	Growth 2015-2014	Growth 2020-2025	Growth 2015-2025
Employee	281.1	305.1	312.7	346.9	376.1	380.5	387.8	416.6	442.6	460.9	513.2	34%	35%	83%
Goods	233.3	259.6	291.5	347.5	334.4	422.3	530.1	406.0	379.3	436.9	342.6	43%	-19%	47%
Capital	215.4	169.5	208.7	184.1	177.8	190.9	239.6	232.8	199.1	338.9	190.6	-17%	0%	-12%
Debt Interest	156.0	182.8	216.6	258.0	275.5	314.1	343.5	403.9	441.4	498.9	552.8	77%	76%	254%
Subsidy	186.0	174.2	166.4	216.9	201.8	196.2	242.1	284.6	297.2	313.8	309.0	8%	57%	66%
Energy	119.1	106.8	97.6	153.5	136.9	108.8	140.4	208.9	210.7	192.8	204.5	15%	88%	72%
Non-Energy	66.9	67.4	68.8	63.4	64.9	87.4	101.7	75.7	86.5	121.1	104.5	-3%	20%	56%
Grants	4.3	7.1	5.4	1.5	6.5	6.3	4.3	5.0	0.0	6.6	0.2	51%	-97%	-97%
Social Protection	97.2	49.6	55.3	84.3	112.5	202.5	173.7	143.7	148.6	153.3	152.7	16%	-25%	57%
Others	10.1	6.0	8.8	16.2	11.7	120.0	79.7	477.5	321.9	355.4	631.8	16%	427%	6.155%
Total	1,183	1,154	1,265	1,455	1,496	1,833	2,001	2,370	2,230	2,558	2,693	26%	47%	128%

Source: Ministry of Finance, APBN LKPP
*Outlook APBN 2024
**RAPBN 2025

CELIOS

Center of Economic and Law Studies (CELIOS)

Jl Abuserin, Kel. Gandaria Selatan,
Kec. Cilandak, Jakarta Selatan, Indonesia

E : admin@celios.co.id
W : celios.co.id