INDONESIA-GERMANY-KENYA SOUTH-SOUTH TRIANGULAR COOPERATION IN ENERGY TRANSITION AS GLOBAL SOUTH SOLIDARITY

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ABSTRAK

Penelitian ini akan berfokus pada bagaimana peran Indonesia dalam memanfaatkan tata kelola pembangunan inovatif South-South Triangular Cooperation (SSTC) dalam mendorong transisi energi bersih dan terbarukan (EBT) di Indonesia yang berfokus pada kolaborasi pemanfaatan energi panas bumi. Kerja sama yang dinaungi dalam kerangka SSTC tersebut melibatkan aktor-aktor negara seperti Indonesia, Jerman, dan Kenya, serta melibatkan koordinasi dengan aktor-aktor non-negara. Persoalan mengenai inklusivitas pembangunan sering menjadi hambatan utama dalam menciptakan pemerataan pembangunan di semua sektor. Meskipun konsep Sustainable Development Goals (SDGs), telah menjadi salah satu motor pembangunan berkelanjutan, berbagai hambatan seperti persoalan pembiayaan, kendala pengetahuan dan teknologi sering mempertegas disparitas pembangunan negara-negara Global South. Penelitian ini menggunakan metode penelitian kualitatif, dengan jenis deskriptif analisis, serta menggunakan teknik pengumpulan data studi pustaka untuk mengumpulkan data primer dan sekunder. Penulis dalam melakukan kajian analisis menggunakan teori Hubungan Internasional Postkolonialisme sebagai salah satu perspektif yang mampu menjelaskan latennya permasalahan pembangunan global di negara-negara Global South. Serta, penulis juga menggunakan konsep SSTC sebagai bentuk alternatif pembangunan yang berorientasi pada solidaritas Global South dalam menghasilkan pembangunan yang lebih inklusif seperti kerja sama trilateral Indonesia-Jerman-Kenya dalam mewujudkan transisi energi bersih dan terbarukan dengan fokus utama di Indonesia.

Kata kunci: Global South, Postkolonialisme, South-South Triangular Cooperation (SSTC), Sustainable Development Goals (SDGs), Transisi Energi.

ABSTRACT

This study examines Indonesia's involvement in leveraging the South-South Triangular Cooperation (SSTC) as innovative development governance to promote the clean and renewable energy (EBT) transition in Indonesia, with a focus on partnership in the use of geothermal energy. Partnership within the SSTC framework includes governmental actors, including Indonesia, Germany, and Kenya, as well as coordination with non-state actors. The issue of development inclusivity is frequently a major impediment to achieving equal development in all sectors. Although the notion of Sustainable Development Goals (SDGs) has emerged as one of the driving factors of sustainable development, many barriers, such as funding issues and knowledge and technological limits, frequently highlight the inequality in growth in Global South countries. This study employs a qualitative research method with a descriptive analysis designation, as well as a literature study data-gathering approach to gather primary and secondary data. The author conducts the analysis study using postcolonial international relations theory as one perspective that can explain the underlying challenges of global development in Global South countries. Furthermore, the author employs the SSTC concept as an alternative form of development oriented toward Global South solidarity in order to achieve more inclusive development, such as the Indonesia-Germany-Kenya trilateral cooperation in realizing a clean and renewable energy transition, with a primary focus on Indonesia.

Keywords: Energy Transitions, Global South, Postcolonialism, South-South Triangular Cooperation (SSTC), Sustainable Development Goals (SDGs),

INTRODUCTION

Following World War II (WWII), countries faced not only the aftermath of post-war global recovery but also global political polarization between the United States (US) and the Union of Soviet Socialist Republics (USSR). This condition resulted in a global political imbalance, which posed a significant hurdle to presenting collaborative development instruments (Gaiser, 2012). In truth, the United Nations (UN), as one of the most comprehensive international agencies, has not been totally successful in presenting inclusive global development governance. In response to post-war development instruments, development agencies and models such as the International Monetary Fund (IMF) and the World Bank (WB) were also underused. The forms of development given in the IMF and WB instruments were often full of political conditions and were not free of Western interests, which were still dealing with the US-USSR bipolar political situation at the time (Breen, 2013).

The global political polarization between Western liberalism and Soviet communism prompted some former colonial countries to seek partnered solidarity, which began with the Asia-Africa Conference (AAC) in Bandung in 1955 (Dinkel, 2018). The meeting's cornerstone was built upon by the Belgrade Conference in 1961, which resulted in the Non-Aligned Movement (NAM), which upheld the principle of political independence and solidarity among Global South countries (Byng, 2022). Although this principle has been presented as a form of global declaration regarding political independence and the principle of Global South solidarity, it has ultimately failed to provide inclusive and value-free effectiveness in aspects of global development that are still influenced by Cold War political polarity. After the Cold War and until the beginning of the twenty-first century, the concept of global development was dominated by patterns of political dominance. Whereas types of assistance in the bilateral-multilateral framework continue to be influenced by political interests and requirements, resulting in recipient nations' political instability and progress.

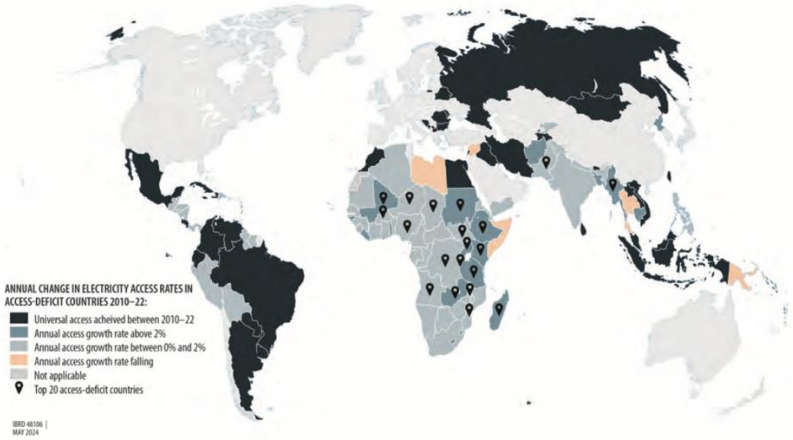
Political elements in the guise of development are ultimately considered as less representative of inclusive global development ideals. Various development frameworks, beginning with the United Nations Conference on the Human Environment in Stockholm in 1972, the Earth Summit in 1992, the United Nations Framework Convention on Climate Change (UNFCCC) or Kyoto Protocol in 1997, the Millennium Development Goals (MDGs) 2000-2015, the Paris Agreement in 2015, and the Sustainable Development Goals (SDGs) 2015-2030 (IFAD, 2024), continue to leave a number of development issues unresolved. In fact, even after the COVID-19 pandemic, many Global South countries dominated by developing countries continue to face development challenges such as financial and technological restrictions. This condition demonstrates that, while global development governance has improved, significant issues persist.

Indonesia, becoming one of the Global South countries dealing with a lack of resources and development technology, requires a development strategy that differs from the traditional paradigm. Traditional development strategies, such as raising financing from global development banks, have regulations that include political requirements. Political requirements under the pretense of global development often led to the formation of local economic-political instability in the recipient nations. Indonesia, as one of the nations afflicted by the post-pandemic SDGs financing gap, requires an alternate method to address the issue. Based on the 2030 SDGs Roadmap, Indonesia requires at least IDR 67,000 trillion, with a financial gap of IDR 14,000 trillion, or $1 trillion (Purwowidhu, 2024). One of the strategies adopted by Indonesia to address this issue is the South-South Triangular Cooperation (SSTC) framework. The enormous finance gap will

become a development issue if it is not addressed through development solutions and alternatives.

SSTC is a representation of Global South solidarity that is based on fair cooperation and has no political conditions. Within the SSTC framework, Indonesia is not only restricted to binding collaboration between state actors but also includes non-state actors with equal principles, focusing on technology transfer and equal finance possibilities (OECD, 2022). The SSTC form of cooperation is also an indirect representation of how postcolonialism theory is present as a form that disagrees with the reality that many current global development cooperation frameworks are still unequal, causing Global South countries to lag behind advanced and rich Global North countries in terms of development.

Figure 1 shows that the majority of nations facing development impediments to obtaining clean and renewable energy, as stated in SDG 7, are in the Global South. The majority of countries facing challenges to renewable energy and electrification are in Africa, South Asia, and a few Southeast Asian countries. The data demonstrates that several Global South countries were only able to have good access to electrification from 2010 to 2022 (World Bank, 2024). Furthermore, sources of energy access in Global South countries continue to rely on non-renewable resources such as fossil fuels and coal, which represent 50% of total consumption (Al Jazeera, 2022). This reality demonstrates that the challenge of access to affordable and clean energy is a global development issue that must be addressed collaboratively. SDGs development governance has mostly provided guidelines on how this governance should be implemented. However, challenges such as the ever-increasing SDG finance gap are also prevalent.



Source: (World Bank, 2024).

Figure 1. Electricity Access Rates in the World (2010-2022)

The alternative form of SSTC partnership exists as a modern collaboration in addressing the issue as a kind of Global South solidarity. One method of implementing the SSTC collaboration program is through triangle cooperation between Indonesia, Germany, and Kenya in the transition to clean and renewable energy (EBT) geothermal in Indonesia, which supports SDG 7 on Affordable and Clean Energy (UN, 2024). Indonesia remains one of the developing countries whose energy consumption is dominated by non-renewable energy at approximately 80%, with renewable energy accounting for only 20% of total energy consumption (REI, 2023). This circumstance will have an adverse effect on sustainable development governance. As a result, Indonesia, through SSTC, is collaborating with Germany and Kenya to shift to clean and sustainable energy using geothermal. This collaboration also includes technological transfer, alternative finance, and training for Indonesia and Kenya (ESDM, 2024a).

Several prior studies have attempted to investigate the SSTC framework's role in promoting global development (Djarwono *et al.*, 2025). The author attempts to investigate how SSTC, as Indonesia's foreign policy, might promote the attainment of post-pandemic SDGs. In broad terms, the author examines SSTC through the lens of foreign policy and national interests, focusing on how the SSTC cooperation framework might help to attain these goals. In evaluating foreign policy issues within the SSTC framework, the author focuses on Goal 1—No Poverty; Goal 2—Zero Hunger; Goal 3—Good Health; and Goal 13—Climate Action, which examines how Indonesia might use the forum to encourage the attainment of numerous post-pandemic SDGs. The author concludes that Indonesia can use the SSTC framework to promote national goals via suitable post-pandemic foreign policy (Djarwono *et al.*, 2025).

The following study (Wijanarka and Dewi, 2024), attempts to investigate the role of the Indonesian government in promoting energy transition through South-South Triangular Cooperation (SSTC). In contrast to the previous study, the authors attempt to discuss the role of the government in encouraging energy transition through the lens of the Nationally Determined Contribution (NDC) Paris Agreement, which is specifically applied to the Clean, Affordable, and Secure Energy for Southeast Asia (CASE) Project. The authors attempt to highlight how the SSTC cooperation forum addresses the development gap in the energy transition element as a form of global solidarity while also supporting Indonesia's NDC through the CASE Project. In their research, the authors focus

not only on how state actors participate in the SSTC partnership forum but also on how non-state players are participating in the cooperation framework. Thus, his research concludes that SSTC is an appropriate framework for encouraging energy transition in Indonesia through the CASE Project (Wijanarka and Dewi, 2024).

The following article (Hariyadi and Suryadipura, 2022), discusses how Indonesia-Germany cooperation through the CASE Project will assist Indonesia in transitioning to a more sustainable energy future. Almost having the same topic as (Wijanarka and Dewi, 2024) on the CASE Project in Indonesia, the author attempts to focus the discussion using an alternate method of analysis. The author focuses on the CASE Project's implementation in Indonesia as part of the clean and renewable energy transition. In addition, the author describes how the CASE Project facilitates technology and knowledge transfer within the SSTC collaboration framework. Thus, the author believes that the SSTC is an important framework for promoting Indonesia's clean and renewable energy transition.

Having a similar study focus to several previous authors, such as (Djarwono *et al.*, 2025) who tried to discuss how the SSTC cooperation framework becomes an agreement for Indonesia to attain its development goals investigated through the concept of foreign policy; (Wijanarka and Dewi, 2024), who tried to discuss how the SSTC framework becomes a global solidarity in encouraging a clean and renewable energy transition analysed through the intersection of the NDC Paris Agreement; or (Hariyadi and Suryadipura, 2022), who discussed the energy transition in Indonesia through the CASE Project. Despite addressing the same study topic, the author will focus on issues and present various analytical concepts. The author will focus on the Indonesian government's role in fostering a clean and renewable energy transition through geothermal energy, which is a form of SSTC cooperation between Indonesia, Germany, and Kenya. In conducting the analysis, the author also employs postcolonial critical theory as a perspective that can provide a clearer picture of the latent development problems in Global South countries such as Indonesia, particularly in terms of SDGs, specifically goal 7 on Affordable and Clean Energy.

METHODS

This study will employ a qualitative method with a descriptive analytic technique. A descriptive analysis-based research method can clearly depict how a phenomenon or issue is raised through an in-depth analysis. This study will focus on a case study of Indonesia's plan for leveraging the SSTC cooperation framework to promote the clean and renewable energy transition in Indonesia, as specified

in SDG 7 affordable and clean energy. The case study was chosen because it can accurately and thoroughly describe a certain occurrence (Gammelgaard, 2017). The author will use postcolonialism theory to support the SSTC argument by giving a novel investigation in comparison to past studies with comparable areas and challenges. Postcolonial theory will be able to explain how the reality of the global development system has evolved. The author will collect both primary and secondary data through literature studies. The author obtains primary data from first-hand sources such as ministry websites and official government pronouncements. Meanwhile, the author will acquire secondary sources from books, journals, news portals, and other trustworthy and accountable sources.

RESULTS AND DISCUSSION

Moving from International Development to Global Development: The North-South Binary

Essentially, development is a dialectic process that will be understood, processed, and improved indefinitely. This is obvious from the history of development, which has continued to strengthen and enhance theoretical frameworks, understandings, and policies targeted at achieving shared welfare while preserving the existing system (Mensah, 2019). Political conditions, changes in the socioeconomic landscape, and technical breakthroughs are all variables that contribute to the ongoing evolution of development. The significance of these policies and adjustments then causes changes to continue, but the goal of development remains the same: inclusive human welfare.

The idea of 'international development,' often associated with the North-South binary, appears to be increasingly inadequate in its ability to encompass the major actors, processes, and difficulties facing the twenty-first century (Horner, 2017). The era has passed, and non-state actors are currently playing an equal role to state actors (Stubbs, 2003). The contemporary era of development is also distinguished by the fact that financing is no longer restricted to how rich and developed Global North countries support developing and poorer Global South countries (Gillespie and Mitlin, 2023). Thus, the development process has fundamentally changed with the emergence of new mechanisms, including civil society, private companies, and the adoption of additional development platforms that are not limited to the state actor development model.

In April 2016, the World Bank stated that it will no longer discriminate against countries based on developed-developing or rich-poor disparities, which would exacerbate the development disparities between the Global North and the Global South (Will, 2015). Various development frameworks, such as the

Sustainable Development Goals (SDGs) and the Paris Agreement, are also increasingly demonstrating a shared commitment to eradicating these barriers. The concept of abolishing the 'binary' status also appears to be an example of how postcolonial governance remains latent and limits people who are disadvantaged and require assistance (McEwan, 2008). The phrase 'international development' is frequently associated with acts intended for poor countries, such as foreign aid. Whereas this condition denotes an active intervention procedure that will soon occur from those in a superior binary (Hart, 2001; Horner, 2017).

Due to changes in global development governance, the term 'global development' has become more commonly used than 'international development,' which is more limited in terms of actor involvement and policy representation (Cornwall, 2007; Horner, 2017). Sustainable development is at the forefront of how global development is depicted and understood. Without a doubt, fostering sustainable development is a significant task for the general good. One of the shifts in global development governance that has a universal reference framework is the SDGs framework, which has been adopted by at least all UN member countries. The SDGs reference framework represents a transition in the governance of the Millennium Development Goals (MDGs), which were also completed in 2015 (IGES, 2024). The MDGs are viewed as providing insufficient representation of global development governance and as ineffective.

It is projected that the transition from MDGs to SDGs will assist in the advancement of global development, which is now hindered by a lack of consistent implementation of work and policy. More recently, from the Kyoto Protocol of 1997, which established the principle of Common but Differentiated Responsibilities (CBDR) from the UNFCCC, to the Paris Agreement of 2016, it has been established that the development of a country is based on a large number of actors working together to achieve the goal of development (UNFCCC, 2023). SDGs as a global development framework that is more comprehensive, flexible, and effective because it includes 17 goals that are hoped to address a variety of global development challenges and issues.

One of the specific SDGs addressed in this paper is Goal 7 on sustainable and reliable energy. Despite the fact that the SDGs are divided into 17 specific goals and targets, they are not inherently distinct from one another. In addition, a single issue stands out and is linked to another as a comprehensive goal for world development. This understanding can be shown in how the COVID-19 pandemic has had an impact on nearly every technical sector and the global implementation of SDGs. In other words, if the goal of the development of energy expands and grows, it may have an impact on the achievement of other development goals.

The Portrait of Energy Transition and Sustainable Development Goal (SDGs) in Indonesia

The framework of SDGs, with 17 goals and 169 development targets, demonstrates the complexity of global development problems that must be addressed globally (UN, 2024). SDG 7 is one of 17 SDGs that share a common aim of ensuring affordable, clean, modern, and sustainable energy for all levels of society. Without equal access to energy, development disparity will persist, affecting development goals and other development aims. SDG 7 aims to provide 'affordable, reliable, sustainable, and modern energy for all' by 2030. Its primary objectives are (1) ensuring universal access to affordable and modern energy services, (2) considerably expanding the amount of renewable energy in the global energy balance, and (3) revealing the level of global energy efficiency (Seforall, 2023).

Energy issues are central to the SDGs adopted by global leaders in September 2015 as part of the 2030 Agenda, ranging from creating new jobs to economic development, security, and women's empowerment (Seforall, 2023; UN, 2024). Goal 7 of the SDGs aims to secure access to clean and affordable energy, which is critical for the growth of agriculture, business, communications, education, health care, and transportation. Without proper access to energy, additional growth opportunities will be restricted, resulting in global development inequity. According to data, at least 957 million people did not have access to electricity in 2015, and this number is expected to decline to 685 million by 2022. The proportion of the population relying on traditional and dirty energy reached 2.7 billion people and will decrease to 2.1 billion in 2022; the share of global clean and renewable energy is even less at 19%; and the proportion of international financial flows to developing countries in support of clean energy is $12.3 billion, which will rise to $15.4 billion in 2022 (IBRD and World Bank, 2024).

These findings demonstrate that the problem of energy disparity eventually limits access to development and impedes inclusive development. A well-established energy system may benefit all sectors, including business, medicine and education, agriculture, infrastructure, communications, and high technology (UN, 2024). In recent decades, Global South countries have continued to be dominated by constraints related to low energy access. Although access to energy has improved in Global South nations, a number of challenges and disparities continue to dominate and impede progress toward SDG 7 goals and targets. For decades, fossil fuels like coal, oil, and gas have been the primary source of power generation. However, the dominant combustion of carbon fuels emits

significant amounts of greenhouse gases, which contribute to climate change and have a severe impact on human well-being and the environment. This eventually leads to a common issue, which has an impact on global development governance. Whereas, this issue eventually becomes a global concern that necessitates more attention. Essentially, accomplishing the 2030 development goals will be impossible if affordable and clean energy is not available.

Limitations and constraints on the supply of energy will fundamentally undermine global development governance under the SDGs. Several concerns, including gender inequality, will worsen unless efficient, equal electrification is implemented. Other issues, for example, affect women and girls, who must spend hours gathering water, resulting in limited access to education. Limited electricity will also impede access to proper health and the optimization of health services in nursing facilities and hospitals. Businesses, micro, small, and medium-sized enterprises, as well as the creative industry, will struggle. The sluggish process of change or transition to clean energy in cooking food will also have an impact on global health concerns, which will eventually lead to the appearance of new health challenges. Several descriptions of these circumstances reflect a dialectic of reality in which access to clean and affordable energy is important. This is because energy services are ultimately critical to preventing disease and increasing access to services under other SDG goals and targets.

Indonesia, as a Global South country, remains further behind in the process of equitable development. Indonesia, for example, experiences a number of challenges in global development governance based on the SDGs. This may be seen in how the pandemic has resulted in an increased national SDG budget. According to the SDG Roadmap 2030, Indonesia requires at least IDR 67,000 trillion, with a finance deficit of IDR 14,000 trillion, or $1 trillion (Purwowidhu, 2024). SDG Goal 7 on affordable and clean energy is one of the development goals that has had a considerable impact, both financially and in terms of implementation. Without sufficient financing, the role of state and non-state actors that often work through grassroots movements to accelerate the transition to inexpensive and sustainable energy will be severely limited (Kurniawan and Nur, 2022).

Data on the consumption of energy sources, particularly in the electrification problem in Indonesia, shows a growth or good trend. Table 1 illustrates a favourable trend in installed capacity by State Electricity Company (PLN) from 2019 to 2021 (BPS, 2022). The utilization of renewable energy has increased between 2019 and 2021. This trend clearly demonstrates the positive influence of numerous development projects that might help Development Goal 7 in terms of affordable and clean energy. However, it is important to note that,

while the data shows an upward trend in energy access and electrification in Indonesia, the issue of clean energy use remains limited. For example, Indonesia's total renewable energy increased by just about 300 MW in 2019-2020 and 900 MW in 2020-2021. Thus, it can be stated that the Indonesian government continues to face challenges in the usage and provision of clean and renewable energy, which has an impact on reaching SDG 7.

Table 1. Installed Capacity of State Electricity Company (PLN) in (MW)

Types of Power Plants	**2019**	**2020**	**2021**
Non-Renewable Energy			
Steam Power (PLTU)	33.095	33.920	33.092
Gas Power (PLTG)	4.998	5.174	5.083
Steam Gas Power (PLTGU)	12.056	11.993	12.430
Diesel Power (PLTD)	5.009	5.388	4.203
Gas Engine Power (PLTMG)	1.920	1.749	2.686
Total Non-Renewable Energy	57.078	58.224	57.494
Renewable Energy			
Hydropower (PLTA)	5.447	5.513	5.661
Geothermal Power (PLTP)	1.986	1.979	2.529
Micro-Hydro Power (PLTMH)	170	204	478
Solar Power (PLTS)	18	18	86
Other Renewable Power (PLTB)	143	296	266
Total Renewable Energy	7.764	8.010	9.020
Total Installed Plant	64.843	65.236	66.514

Source: (BPS, 2022), data was modified by the author.

The data in Table 1 also show that access to energy and electricity is increasing in Indonesia. However, the majority of energy and electricity are still dominated by non-renewable energy. For example, non-renewable energy accounts for around 85% of energy supply in Indonesia, with a focus on steam power, gas power, and diesel power (Wijanarka and Dewi, 2024). Furthermore, renewable energy sources like hydropower, geothermal power, solar power, and micro-hydropower are now used for around 15% of total national consumption of energy. Despite the fact that the government must continue to make efforts to provide affordable and clean energy, the availability of affordable and clean energy is the single most important factor in the development of the SDGs (ESDM, 2024c).

Given the constraints of the conditions, the government can only have a minor impact on the supply of clean and affordable energy access services. The

Indonesian government uses modern development governance, which incorporates the notion of triangular collaboration, as one of the alternatives to the problem of constrained financing and technology transfer. The modern triangular cooperation framework includes non-state actors as stakeholders who can contribute to global development. This kind of management allows for equitable collaboration without the need for political involvement, as is common in traditional development governance, which is interventionist and political in nature. This collaborative framework can also inspire how Global South countries ought to promote solidarity in accordance with postcolonial ideology. As a result, the following debate will attempt to evaluate how SSTC is a type of representation of Global South countries' development solidarity, as analysed from a postcolonial perspective.

South-South Triangular Cooperation (SSTC) Indonesia-Germany-Kenya: Analysis of Global South Issue through Postcolonialism

Traditional economic growth relies on the notion that the state is the primary actor responsible for society's well-being. This concept assumes that society's welfare is determined by the state's ability to properly utilize its resources (Thomas, 2024). Thus, when the economy and welfare do not go hand in hand, classical economics will blame state actors for their inability to utilize their resources. However, many experts believe that economic and social inequalities are the outcome of the existing system, which is passed down from generation to generation through dialectical trade.

Postcolonialism seeks to explain how governments and societies in historically colonized territories cooperate in the management of international relations. The idea of 'post' in postcolonialism does not imply that the impact or consequences of the colonial government have fully faded. On the contrary, they assume that inequality and inequity in global governance now are the product of the history of colonialism and imperialism by Western powers (Nair, 2017). These concerns eventually have an impact on the growth of gaps between the Global North and Global South, which is one of the current issues in global development. Postcolonialism focuses on how traditional theories of international relations neglect the intersectionality of imperialism, racism, ethnicity, gender, and class disparities when examining how global power works, ultimately reproducing hierarchies in international relations (Dunne, Kurki and Smith, 2013).

The hierarchy in global economic and development governance is a result of the power inequalities caused by major actors (Schieder and Spindler, 2014). The primary idea of postcolonialism is that Western perceptions of non-Western countries—former colonies dominated primarily by Global South countries—

derive from the legacy of Western colonialism altogether. The dominant rhetoric in postcolonialism holds that power dynamics in the dialectic of global development inequalities appear normal. In short, postcolonialism contends that solutions to global poverty and inequality will be difficult to develop (Nair, 2017). This is because Western representation is difficult to distinguish from the bias of existing global structures that appear 'normal.' Postcolonialism tries to question the global order, which is dominated by large state actors who always have a dominant position.

Postcolonialism holds that how global inequality exists nowadays is the product of Western ideas and standards being latently created in an unequal and seemingly natural hierarchy. This perspective contends that Global South countries, such as Indonesia, face a much larger financing gap than Global North countries; access to affordable and clean energy remains limited; or the latent SDGs problem in many Southern countries is a result of the dialectic of Northern countries dominated by Western nations. Thus, the conditions described in Table 1 about the disparity of access to clean energy, which remains limited in Indonesia, are the product of the colonial dialectic, which persists through unequal transactions. This is supported by data showing that the majority of countries that employ unclean and non-renewable energy are developing countries. Indonesia is still limited to 15% clean energy use, notwithstanding an increase from previous years (Tachev, 2024).

One interest in responding to Indonesia's limitations as a Global South country seeking to 'escape' from global development disparities is to use the SSTC cooperative structure. The SSTC cooperation framework is an alternative solution that can assist Indonesia in overcoming the limitations of SDGs financing, which has increased post-pandemic to IDR 67,000 trillion, with a financing gap of IDR 14,000 trillion, equivalent to $1 trillion in the SDGs Roadmap 2030 projection (Purwowidhu, 2024). The SSTC is intended to help provide a modern cooperation framework that is more egalitarian and less politically charged than conventional types of aid from global institutions.

SSTC is primarily a manifestation of Global South solidarity in the pursuit of greater development independently. Developing countries often get 'conditional' assistance from developed countries, leading to an uneven and dependent order that aligns with postcolonial theory. The G-77 established the United Nations Conference on Trade and Development (UNCTAD) in 1964, and SSTC formed with it. The structure was then formally continued under the United Nations Office for South-South Cooperation (UNOSSC), which is a continuation of the Buenos Aires Plan of Action (BAPA) of 1978 (Kemenlu, 2015). The SSTC mechanism is an example of South-South manifestation that promotes national

welfare and independence. SSTC is also viewed as multi-sector development encompassing a diverse range of actors, including non-state actors (ILO, 2015). Thus, disregarding the concept of Global South solidarity, the form of SSTC cooperation does not limit the ability of rich Northern countries to participate in the context of this collaboration.

The use of the SSTC framework in global development governance practices aims to address how the issue of SDG development, particularly goal 7, remains largely unattended in many developing countries, including Indonesia. Despite an improvement, access to affordable and clean energy in Indonesia still contributes to only about 15% of total resource use. Postcolonialism then regards this position as a problem inherited in the shape of a postcolonial global system. This suggests that, while Indonesia is independent, it is not truly 'independent' because of unequal exchanges between the Global North and the Global South. To address these issues, especially the increasing national SDG deficits, Indonesia has adopted one of the SSTC cooperation schemes with Germany and Kenya as a form of SSTC manifestation.

The Indonesian government, represented by the Directorate General of New Energy—Ministry of Energy and Mineral Resources (ESDM) and the Ministry of Foreign Affairs (Kemenlu) of the Republic of Indonesia, collaborated with the Kenyan government and the German government, represented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), to address the issue of renewable energy use in the geothermal energy sector. The framework is a sort of thorough exploration inside the SSTC framework that seeks to optimize the use of geothermal energy in Indonesia. The meeting, held in Bandung from November 4 to 14, 2025, aimed to provide chances for developing countries participating, particularly Indonesia and Kenya, to seek alternative funding as well as the transfer of technology and knowledge in the use of renewable geothermal energy (ESDM, 2024b).

Indonesia recognizes that access to renewable energy may contribute to other development goals and targets. This goal can only be reached through collaboration and strategic partnership. SSTC is an effective framework that upholds the idea of equality and is not politically conditional. Thus, cooperation between Indonesia, Germany, and Kenya can serve as an equitable and gradual basis for achieving SDG 7's aim of affordable and sustainable energy. This project, by integrating knowledge and skills, has the potential to provide inexpensive, reliable, and sustainable energy (ESDM, 2024b). Therefore, SDG governance can result in more inclusive growth.

The SSTC cooperation framework between Indonesia, Germany, and Kenya at the 2024 conference is essentially a continuation of the previous work program dubbed Renewable Energy Mini Grids in South-South Triangular Cooperation (ENTRI), which has been in place since 2023 (Kemensetneg, 2024). The partnership framework aims to collaborate in boosting the use of clean and renewable energy in the geothermal energy industry, which has significant potential in Indonesia but is currently underdeveloped. Geothermal energy scientists at Universitas Gadjah Mada (UGM) stated that Indonesia has 40% of the world's geothermal energy potential, or around 23,965 MW. The geothermal potential is evenly divided across Sumatra, Java, Bali, and Sulawesi. Thus, geothermal energy in Indonesia has the ability to fulfill national energy needs while lowering carbon emission levels (Grehenson, 2024).

Table 2. The Types of Power Plants of Indonesia in 2023 (MW).

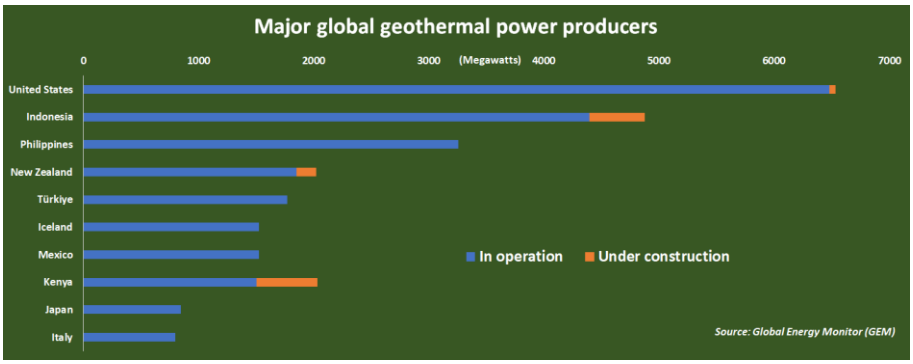
The Types of Power Plants	Installed Capacity by Power Plant (MW) in 2023
Hydro power	5.415,42
Steam power	39.412,84
Gas power	3.911,45
Steam gas power	13.950,93
Geothermal energy	2.518,99
Diesel power	4.221,84
Gas engine power	2.691,23
Micro hydro power	830,82
Solar	242,33
Other power	264,96
Total installed capacity	73.460,81

Source: (BPS, 2023).

Table 2 above shows many renewable energy potentials in Indonesia that remain just utilized for 15% of total energy consumption in the country. Based on this table, it is clear that steam power and steam gas power are the most commonly used renewable energies. Meanwhile, geothermal power accounts for only 2,518 MW, or 3.5% of Indonesia's total renewable energy use in 2023, which is 73,460.81 MW. Furthermore, according to statistics from UGM geothermal experts, Indonesia has geothermal resources of 23,965 MW, with only 2,528 MW being used in 2023. This prospect illustrates that Indonesia fundamentally has a

significant potential in the availability of geothermal energy to be used as clean and inexpensive energy, as per the target of SDG 7 (BPS, 2023).

The application is then carried out through the SSTC collaboration program between Indonesia, Germany, and Kenya, which focuses on energy development and utilization in many regions of Indonesia. The development is carried out, for example, in the West Java region's Kamojang area, which concentrates on the development of Geothermal Power Plants (PLTP) and Green Hydrogen Plants (GHP) operated by the Indonesian State Electricity Company (PLN) (ESDM, 2024b). Essentially, the SSTC cooperation plan between these three countries is an example of how Global South solidarity is conducted. This implementation also demonstrates how Western colonialism manifests itself in global development governance, which is rife with inequity and disparity. Postcolonialism believes that this dialectic must be eradicated through what the SSTC framework defines as an expression of Global South solidarity with the goals of the SDGs.



Source: (Maguire, 2023).

Figure 2. Major global geothermal power producers.

Employing the SSTC framework, postcolonialism strives to investigate how the world order dominated by Global North actors, which include developed and wealthy countries, has altered. In the SSTC framework, which is not restricted to state actors and is based on equal partnership, the actors engaged contribute to specific components of the objectives. The partnership between Indonesia, Germany, and Kenya aims to encourage technology transfer and alternative funding from Germany to Indonesia and Kenya as representatives of established and rich Global North countries. Whereas technology transfer is a form of equal and mutually beneficial cooperation that does not impose any of the political

limitations that Global South countries typically face. Kenya, in this scenario, benefits from German training in Indonesia, as well as how Indonesia, as a developing country, has been able to use geothermal energy, which can subsequently be used by Kenya, which has geothermal potential of up to 10,000 MW (Maguire, 2023). From Figure 2 above, it can be observed that Indonesia and Kenya are some of the highest countries in the consumption of geothermal energy in the world (Cariaga, 2024).

The SSTC cooperation framework between Indonesia, Germany, and Kenya is ultimately a sort of global development solidarity that does not favor North-South inequities. Postcolonialism assumes that an unequal world is the outcome of the former colonial power, which must be investigated and eliminated. The SSTC collaboration between Indonesia, Germany, and Kenya, as well as the involvement of other non-state actors in the implementation of geothermal energy utilization as a form of support for SDG 7, affordable and clean energy, is a form of postcolonial interrogation aimed at eliminating the legacy of global development inequality through a form of global south solidarity. This global south solidarity is reflected in an SSTC system, which is an example of the depiction of a modern development framework involving various actors. This kind of development alternative can finally address postcolonial concerns related to latent global inequality in the Global South, as well as how modern cooperation methods might be used to promote inclusive development.

CONCLUSION

In contrast to the fundamental premise of conventional international relations theory, such as realism and liberalism, the success of a nation's development and welfare is determined by the nation's actors themselves. Postcolonialism, a critical theory of international relations, contends that the current reality of development disparity is the outcome of Western colonialism's historical legacy. This legacy eventually results in unfair and seemingly natural exchanges. Thus, the situation of inequality in SDG implementation, as well as inequality in financing and technology use in various Global South nations, is the product of this dialectic of conditions. SSTC exists primarily as a response to development inequality and the fact that traditional modes of development continue to rely on unequal political involvement from the Global North and Global South.

SSTC is present in the context of an alternative development that is equal and not limited to the participation of state actors alone. Furthermore, this cooperation framework serves as a demonstration of the Global South's solidarity in supporting the actualization of SDG development. The cooperation of Indonesia, Germany, and Kenya within the SSTC framework in the use of clean and sustainable geothermal energy is one strategy to eradicate the dialectic of uneven legacy as defined by postcolonialism. This framework facilitates a process that includes not just revenue but also the transfer of technology from Germany, a representation of the Global North, to Indonesia and Kenya, both of which have geothermal resources. It is envisaged that this collaboration will assist in promoting more inclusive global development governance, as outlined in the SDGs. Without affordable and clean energy, progress will be stalled, as feared by the postcolonial argument

REFERENCES

BPS (2022) *Electricity Data of Indonesia*. Available at: https://www.bps.go.id/id/statistics-table/2/ODY0IzI=/tenaga-listrik-yang-dibangkitkan-menurut-provinsi.html (Accessed: 5 May 2025).

BPS (2023) *Kapasitas Terpasang PLN menurut Jenis Pembangkit Listrik (MW), 2023*. Jakarta. Available at: https://www.bps.go.id/id/statistics-table/2/MzIxIzI=/kapasitas-terpasang-pln-menurut-jenis-pembangkit-listrik.html (Accessed: 6 May 2025).

Breen, M. (2013) *The Politics of IMF Lending*. Springer. Available at: https://link.springer.com/book/10.1057/9781137263810 (Accessed: 5 May 2025).

Byng, M. (2022) *NAM 2.0 - The Centrality of the Global South in a New Cold War*. Available at: https://www.cirsd.org/en/horizons/horizons-winter-2024--issue-no-25/nam-20---the-centrality-of-the-global-south--in-a-new-cold-war (Accessed: 5 May 2025).

Cariaga, C. (2024) *ThinkGeoEnergy's Top 10 Geothermal Countries 2023 – Power Generation Capacity*, *Think Geo-energy*. Available at: https://www.thinkgeoenergy.com/thinkgeoenergys-top-10-geothermal-countries-2023-power-generation-capacity/ (Accessed: 6 May 2025).

Cornwall, A. (2007) 'Buzzwords and Fuzzwords: Deconstructing Development Discourse', *Development in Practice*, 17(4), pp. 471–484. Available at: https://www.jstor.org/stable/25548244 (Accessed: 2 April 2025).

Dinkel, J. (2018) *The Non-Aligned Movement: Genesis, Organization and Politics (1927-1992)*. Leiden: BRILL. Available at: https://books.google.co.id/books?hl=id&lr=&id=YqOODwAAQBAJ&oi=fnd&pg=PR9&dq=non+aligned+movement+cold+war&ots=Mjwy5ZjTj3&sig=wqCe_X6KbLS168vYcu7YS84d064&redir_esc=y#v=onepage&q=non%20aligned%20movement%20cold%20war&f=false (Accessed: 5 May 2025).

Djarwono, L.F. *et al.* (2025) 'South-South and Triangular Cooperation as Indonesian Foreign Policy to Achieve Sustainable Development Goals (SDGs) Post Pandemic', in, pp. 207–214. Available at: https://doi.org/10.2991/978-2-38476-368-9_19.

Dunne, T., Kurki, M. and Smith, S. (2013) *International Relations Theories: Discipline and Diversity*. 3rd edn. Oxford University Press.

ESDM (2024a) *Kerja Sama Selatan-Selatan dan Triangular Jalin Kolaborasi Bidang Panas Bumi*, *Kementerian Energi dan Sumber Daya Mineral*. Available at: https://ebtke.esdm.go.id/artikel/berita/kerja-sama-selatan-selatan-dan-triangular-jalin-kolaborasi-bidang-panas-bumi (Accessed: 4 May 2025).

ESDM (2024b) *Kerja Sama Selatan-Selatan dan Triangular Jalin Kolaborasi Bidang Panas Bumi*. Bandung. Available at: https://ebtke.esdm.go.id/artikel/berita/kerja-sama-selatan-selatan-dan-triangular-jalin-kolaborasi-bidang-panas-bumi (Accessed: 6 May 2025).

ESDM (2024c) *Pemerintah Kejar Target Tingkatkan Bauran EBT*, *Kementerian Energi dan Sumber Daya Mineral*. Available at: https://www.esdm.go.id/id/media-center/arsip-berita/pemerintah-kejar-tingkatkan-bauran-ebt#:~:text=Berdasarkan%20data%20DEN%2C%20persentase%20bauran,%2C09%25%20pada%20tahun%202023. (Accessed: 5 May 2025).

Gaiser, L. (2012) 'From Bipolarity to Bipolarity: International Relations Repeating Again', *Journal of Global Policy and Governance*, 1. Available at: https://link.springer.com/article/10.1007/s40320-012-0004-1 (Accessed: 5 May 2025).

Gammelgaard, B. (2017) 'The Qualitative Case Study', *The International Journal of Logistics and Management* [Preprint]. Available at: https://www.emerald.com/insight/content/doi/10.1108/ijlm-09-2017-0231/full/html (Accessed: 5 May 2025).

Gillespie, T. and Mitlin, D. (2023) 'Global development and urban studies: tactics for thinking beyond the North–South binary', *Enivronment & Urbanization*, 35(2). Available at: https://journals.sagepub.com/doi/full/10.1177/09562478231172057 (Accessed: 5 May 2025).

Grehenson, G. (2024) *Pemanfaatan Energi Geothermal Masih 11%, Ini Tanggapan Pakar Geologi UGM*, *Universitas Gadjah Mada*. Available at: https://ugm.ac.id/id/berita/pemanfaatan-energi-geothermal-masih-11-ini-tanggapan-pakar-geologi-ugm/ (Accessed: 6 May 2025).

Hariyadi, F.A. and Suryadipura, D. (2022) 'Indonesia And Germany Bilateral Cooperation Towards Renewable Energy Transition Through Clean, Affordable and Secure Energy (Case)', *JURNAL ILMU SOSIAL*, 21(2), pp. 145–160. Available at: https://doi.org/10.14710/jis.21.2.2022.145-160.

Hart, G. (2001) 'Development critiques in the 1990s: culs de sac and promising paths', *Progress in Human Geography* [Preprint]. Available at: https://journals.sagepub.com/doi/abs/10.1191/030913201682689002 (Accessed: 5 May 2025).

Horner, R. (2017) *What is global development? Global Development Institute*. Manchester: The University of Manchester. Available at: www.gdi.manchester.ac.uk.

IBRD and World Bank (2024) *Tracking SDGs 7: The Energy Progress Report*.

IFAD (2024) *Demystifying South-South and Triangular Cooperation*. Available at: https://www.ifad.org/en/w/explainers/demystifying-south-south-and-triangular-cooperation (Accessed: 27 April 2025).

IGES (2024) *Sustainable Development Goals (SDGs)*, *Intitutute for Global Environmental Strategies (IGES)*. Available at: https://www.iges.or.jp/en/sdgs (Accessed: 14 March 2025).

ILO (2015) *Triangular Cooperation and Decent Work Good Practices*. Available at: https://www.itcilo.org/sites/default/files/inline-files/wcms_430348.pdf (Accessed: 6 May 2025).

Al Jazeera (2022) *Interactive: How much of your country's electricity is renewable?*, *Al Jazeera*. Available at: https://www.aljazeera.com/news/2022/1/20/interactive-how-much-of-your-countrys-electricity-is-renewable-infographic#:~:text=About%2030%20percent%20of%20the,solar%20and%20wind%20among%20others.&text=The%20demand%20for%20energy%20is,solar%20and%20wind%20among%20others. (Accessed: 5 May 2025).

Kemenlu (2015) *Kajian Mandiri: Reorientasi Kerja Sama Selatan-Selatan dan Triangular bagi Kepentingan Nasional*. Jakarta.

Kemensetneg (2024) *Dorong Implementasi Energi Terbarukan: Indonesia, Jerman, dan Kenya Selenggarakan KSST Bidang Geotermal Energi*, *Kementerian Sekretariat Negara Republik Indonesia*. Available at: https://www.setneg.go.id/baca/index/dorong_implementasi_energi_terbarukan_indonesia_jerman_dan_kenya_selenggarakan_ksst_bidang_geotermal_energi (Accessed: 6 May 2025).

Kurniawan, A.D. and Nur, A.I. (2022) 'Non-State Actor Contribution in Achieving Sustainable Development Goals: Capturing Global Reporting Initiative Role in Indonesia', *Andalas Journal of International Studies*, 11(2). Available at: https://ajis.fisip.unand.ac.id/index.php/ajis/article/view/597/0 (Accessed: 5 May 2025).

Maguire, G. (2023) *Kenya steps up as global geothermal powerhouse*, *Reuters*. Available at: https://www.reuters.com/markets/commodities/kenya-steps-up-global-geothermal-powerhouse-2023-10-05/ (Accessed: 6 May 2025).

McEwan, C. (2008) *Postcolonialism and Development*. Taylor & Francis Group. Available at: https://www.taylorfrancis.com/books/mono/10.4324/9780203887387/postcolonialism-development-cheryl-mcewan (Accessed: 5 May 2025).

Mensah, J. (2019) 'Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review', *Cogent Social Sciences*, 5(1). Available at: https://www.tandfonline.com/doi/full/10.1080/23311886.2019.1653531 (Accessed: 5 May 2025).

Nair, S. (2017) *International Relations Theory*. Edited by S. McGlinchey, R. Walters, and C. Scheinpflug.

OECD (2022) *Triangular Cooperation: Why Does It Matter?* Available at: https://www.oecd.org/content/dam/oecd/en/publications/support-materials/2023/10/global-perspectives-on-triangular-co-operation_4ac56870/triangular-co-operation-why-does-it-matter-2018-booklet.pdf (Accessed: 4 April 2025).

Purwowidhu, C.S. (2024) *Dorong Inovasi Pendanaan SDGs 2030, Ini Upaya Pemerintah*, *Media Keuangan Kementerian Keuangan Republik Indonesia*. Available at: https://mediakeuangan.kemenkeu.go.id/article/show/dorong-inovasi-pendanaan-sdgs-2030-ini-upaya-pemerintah (Accessed: 27 April 2025).

REI (2023) *The Data of Electricity Consumption in Indonesia*. Jakarta. Available at: https://renewableenergy.id/data-energi-terbarukan/#:~:text=19%2C6%25%20Listrik%20Indonesia%20Berasal%20dari%20Energi%20Terbarukan%20Pada%202022&text=Our%20World%20in%20Data%20mencatat,65%20Terawatt%20jam%20(TWh). (Accessed: 5 May 2025).

Seforall (2023) *Sustainable Development Goal 7 (SDG7)*, *Sustainable Energy for All*. Available at: https://www.seforall.org/our-work/sustainable-development-goal-7-sdg7 (Accessed: 5 May 2025).

Stubbs, P. (2003) 'International Non-State Actors and Social Development Policy', *Global Social Policy*, 3(3). Available at:

https://journals.sagepub.com/doi/abs/10.1177/14680181030033003 (Accessed: 5 May 2025).

Tachev, V. (2024) *Renewable Energy in Indonesia – Current State, Opportunities and Challenges*. Available at: https://energytracker.asia/renewable-energy-in-indonesia/ (Accessed: 6 May 2025).

Thomas, A.M. (2024) 'Classical Economics and the Question of Aggregate Demand', *Review of Political Economy*, 36(3). Available at: https://www.tandfonline.com/doi/full/10.1080/09538259.2022.2156160 (Accessed: 6 May 2025).

UN (2024) *Ensure access to affordable, reliable, sustainable and modern energy for all*, *Department of Economic and Social Affairs - Sustainable Development*. Available at: https://sdgs.un.org/goals/goal7 (Accessed: 5 May 2025).

UNFCCC (2023) *The Paris Agreement*, *United Nations Framework Convention on Climate Change*. Available at: https://unfccc.int/process-and-meetings/the-paris-agreement (Accessed: 5 May 2025).

Wijanarka, T. and Dewi, N.N.C.L. (2024) 'PERAN PEMERINTAH INDONESIA DALAM MENDORONG TRANSISI ENERGI MELALUI SOUTH-SOUTH AND TRIANGULAR COOPERATION', *Indonesian Journal of International Relations*, 8(2), pp. 286–312. Available at: https://doi.org/10.32787/ijir.v8i2.498.

Will, S. (2015) 'Planetary boundaries: Guiding human development on a changing planet'. Available at: https://www.researchgate.net/publication/270898819_'Planetary_Boundaries_Guiding_Human_Development_on_a_Changing_Planet' (Accessed: 5 May 2025).

World Bank (2024) *World Bank Global Electrification Database*. Washington DC. Available at: https://trackingsdg7.esmap.org/data/files/download-documents/sdg7_-_report_2024_-_chapter1-accesstoelectricity.pdf (Accessed: 6 May 2025).