

ARDL Analysis of the Triangular Relationship between Sustainable Development Goals, Community Social Values, and New Development in the Indonesian Development Context

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Abstract

This research examines the relationship between Sustainable Development Goals (SDG), Community Social Values (CSV), and New Development in the Indonesian context. SDG is the UN's global goals to overcome development challenges, CSV is the social values of society, and New Development is a development paradigm that emphasizes human welfare, the environment and democracy. This study combines World Bank secondary data and the autoregressive distributed lag (ARDL) technique to examine whether or not there is a correlation between the two. The results of this research show that SDG, CSV, and New Development have a relationship that influences each other and has a positive and significant effect. This research contributes to science, stakeholders and sustainable development practices in Indonesia. This research also provides recommendations, such as increasing education and advocacy, building networks and partnerships, and adopting and adapting sustainable development practices.

Keywords: Sustainable Development Goal, Community Social Values, New Development

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Introduction

The MDGs were intended to last until 2015, however their work will continue with the SDGs. The MDGs succeeded in achieving several advances in terms of reducing poverty, improving maternal and child health, and access to basic education. However, the MDGs also faced several criticisms, such as lack of participation from developing countries, lack of integration between social, economic and environmental issues, and lack of monitoring and evaluation of goal achievement. Therefore, the SDGs are designed to overcome these weaknesses and create a more inclusive, holistic and results-oriented framework (Diouf, 2019).

The SDGs consist of 17 goals and 169 targets represent the social, economic, and environmental aspects of sustainable development. These goals cover issues that are highly relevant to current global challenges, such as climate change, inequality, conflict, migration and urbanization. These targets are set using indicators that can be measured and verified, thereby facilitating reporting and accountability. Apart from that, the SDGs also emphasize the importance of partnerships between various stakeholders, such as government, the private sector, civil society, international organizations, and academia, in achieving common goals (Khoshnava, Rostami, Zin, Štreimikienė, Yousefpour, Strielkowski, & Mardani, 2019).

The SDGs apply to all UN member states, regardless of economic or political status. This shows that the SDGs are a universal agenda that recognizes that sustainable development is a shared responsibility and requires global cooperation. The SDGs also respect the diversity and local context of each country, leaving room for adjustments and national priorities. Thus, the SDGs expect that each country can determine for itself the best way to achieve the agreed goals, according to conditions and capacities (Walsh, Murphy, Horan, & Banerjee, 2019).

The SDGs have an implementation period of up to 2030, which means that we only have less than a decade to realize this shared vision. For this reason, real commitment and action is needed from all parties, all at the global, regional, national and local levels. SDGs are not just about numbers or targets, but also about values and principles to be upheld, such as solidarity, inclusiveness, justice and sustainability. The SDGs are an opportunity to shape a desired future, leaving no one behind (Firoiu, Ionescu, Băndoi, Florea, & Jianu, 2019).

Community Social Values (CSV) are values shared by members of a particular community, which reflect beliefs, norms, attitudes, and expectations regarding social, economic, and environmental issues. CSV can influence the way society interacts, participates, and contributes to the development process. CSV can also be a source of motivation, inspiration, and innovation for communities to create creative and adaptive solutions that are appropriate to the local context (Juma-Michilena, Ruiz-Molina, Gil-Saura, & Belda-Miquel, 2023).

New Development is a development paradigm that emphasizes the importance of paying attention to human welfare, social justice and environmental sustainability in determining the direction and indicators of progress of a country or society. New Development criticizes development that is only oriented towards economic growth and consumption of natural resources without considering the social and environmental impacts it causes. New Development also proposes development alternatives that are more humane, participatory and holistic, which respect cultural, ecological and political diversity (Mensah, 2019).

The application of CSV and New Development in development is the Village Building Movement (GDM) in Indonesia. GDM is a movement that aims to empower village communities through participation, independence and creativity. GDM invites village communities to determine the vision, mission and development strategy based on local values, potential resources and challenges faced (Huyer, Simelton, Chanana, Mulema, & Marty, 2021). The Village Development Movement (GDM) also encourages village communities to develop innovative, environmentally friendly solutions, such as the use of renewable energy, waste management and organic farming. The Village Development Movement (GDM) has succeeded in improving welfare, justice and sustainability in various villages in Indonesia (Hutuely & Rumra, 2023).

The aim of this research is to examine the relationship between Sustainable Development Goals (SDG), Community Social Values (CSV), and New Development in the context of Indonesia, as one of the developing countries that is trying to achieve sustainable development. This research also aims to identify challenges, opportunities and recommendations to strengthen the synergy between these three concepts in development practice in Indonesia.

Literature Review

One of the most significant problems the world is currently experiencing is sustainable development. This idea encourages considering how decisions now and in the future will affect the environment, society, and economy in a comprehensive way (Ramadani, Agarwal, Caputo, Agrawal, & Dixit, 2022). Economic, social, and environmental factors are the three fundamental facets of sustainable development. The economic dimension of sustainable development refers to a nation or civilization's ability to bring wealth to its people through economic growth, employment, and commerce (Khoshnava, Rostami, Zin, Štreimikienė, Yousefpour, Strielkowski, & Mardani, 2019). The social dimension is concerned with the respect and fulfilment of human rights, gender equality, health, education, and culture. The environmental component includes the preservation and management of natural resources, such as air, water, land, flora, and wildlife, as well as the adaptation and mitigation of climate change (Sulisnaningrum, Mutmainah, Bawono, & Drean, 2023).

Sustainable development is not only the responsibility of the government, but also entails the involvement of a number of stakeholders, including the media, academia, civic society, and business. All parties must work together to achieve a shared vision of fair, inclusive and sustainable development (Rashed & Shah, 2021). One way to encourage this collaboration is to use a partnership approach, which is one of the Sustainable Development Goals (SDG) number 17. Partnerships can be carried out through various mechanisms, such as dialogue, consultation, advocacy, funding and capacity (Oliveira- Duarte, Reis, Fleury, Vasques, Fonseca Filho, Korias, & Baruque-Ramos, 2021).

Sustainable development also requires indicators that can measure and monitor the progress achieved. These indicators must be relevant, accurate, easy to understand, and comparable between countries or regions (Huan, Liang, Li, & Zhang, 2021). The UN has established a number of global indicators to measure the achievement of the SDGs, consisting of 231 indicators divided into 17 goals and 169 targets. However, these global indicators do not always suit the local context, so countries also need to develop national or subnational indicators that suit priorities and needs (Issever Grochová & Litzman, 2021).

Sustainable development is development that is future-oriented, but also pays attention to present conditions. Sustainable development is development that supports humans, but also maintains balance with nature. Sustainable development is development that is global, but also respects local diversity. Thus, sustainable development is development that challenges innovation, collaboration and responsibility (Paul, 2022).

As a developing nation with the fourth-largest population in the world and remarkable cultural variety, Indonesia is dedicated to attaining the Sustainable Development Goals (SDGs) in line with its priorities and national circumstances (Thamrin, 2020). In order to eradicate poverty, safeguard the environment, and guarantee peace and prosperity for all people, the UN adopted the Sustainable Development Goals (SDGs) in 2015. (Leal Filho, Lovren, Will, Salvia, & Frankenberger, 2021). The 2020–2024 National Medium Term Development Plan (RPJMN) was created by Indonesia as a roadmap for achieving the SDGs at the sector, national, and regional levels (Nurfindarti, 2019).

RPJMN 2020-2024 is a national development planning document that describes the government's vision, mission, policy direction, strategy, programs and budget allocation for a five-year period. The 2020-2024 RPJMN emphasizes the importance of human development, strengthening the economy, improving environmental quality, and strengthening government governance. The 2020-2024 RPJMN also includes indicators and targets that are in line with the SDGs, so that it can monitor and evaluate progress in achieving these global goals in Indonesia (Andrias, Aituru, Sari, & Manullang, 2022). Apart from that, Indonesia also took the plan to relocate Jakarta, the nation's capital, to East Kalimantan, with the hope of encouraging more equitable, inclusive and sustainable development throughout Indonesia (Syaban & Appiah-Opoku, 2023).

In August 2019, President Joko Widodo announced the relocation of the capital city, with an anticipated completion date of 2024. The new capital city will now occupy an area of approximately 256,000 hectares, located between the districts of Kutai Kartanegara and North Penajam Paser (Farida, 2021). The relocation of the capital city is expected to reduce Jakarta's role as the hub of commerce, administration, and services and enhance the development balance within and outside of Java. The capital city's relocation is anticipated to include environmental, social, cultural, and economic factors in addition to incorporating SDG principles into its design and execution (Bonita & Wadley, 2022).

One of the main challenges in achieving the SDGs is how to integrate community social values (CSV) into the development process. CSV is the values shared by community members in interacting, working together, and solving problems together. CSV can reflect a society's identity, culture, norms, and ethics, as well as influence behavior, attitudes, and preferences. CSV can be a source of motivation, inspiration and innovation for development, but it can also become an obstacle, conflict and resistance if not managed well (Sukoharsono & Hariadi, 2020).

Community Social Values (CSV) in Indonesia are mutual cooperation, deliberation and *sasi*. These three values have important meanings and implications for sustainable and equitable development in Indonesia. In this essay, I will explain what CSV is, how CSV can support New Development, and what challenges and opportunities CSV faces in the current Indonesian context (Suripto, 2019).

Gotong royong is the value of cooperation and mutual assistance which has been part of the traditions of Indonesian society for a long time. Mutual cooperation can be applied in various areas of development, such as infrastructure, health, education and the environment. Communities can work together to build roads, bridges, schools, health centers or places of worship. Communities can also work together to clean the environment, hold social services, or raise funds to help disaster victims. Mutual cooperation can support New Development because mutual cooperation shows that society has initiative, creativity and solidarity in overcoming development problems. Mutual cooperation can also increase independence, skills and community welfare (Siradjuddin, 2023). Deliberation is a democratic value and consensus that respects differences of opinion and interests in decision making. Deliberation can increase participation, accountability and transparency in development, as well as reduce the potential for conflict and corruption. The community can consult to determine priorities, allocation and supervision of the development budget. The community can also deliberate to resolve disputes,

enforce the law, or determine public policy. Deliberation can support New Development because deliberation shows that the community has rights, responsibilities and a voice in development. Deliberation can also increase justice, trust and harmony in society (Gherghina & Geissel, 2020).

Sasi is the value of conservation and management of natural resources originating from the traditions of the Maluku people. Sasi prohibits the exploitation of natural resources during certain periods to maintain ecological balance and social welfare (Muin & Rakuasa, 2023). Communities can carry out sasi to protect forests, seas or land from excessive logging, fishing or cultivation. Communities can also carry out sasi to regulate the rights, obligations and sanctions for users of natural resources. Sasi can support New Development because sasi shows that people have awareness, concern and wisdom in development. Sasi can also increase the sustainability, availability and utilization of natural resources (Matitaputty, 2023).

Research Methods

Research variables are characteristics or attributes that can be measured, observed, or manipulated in research. Research variables can be divided into dependent variables, independent variables and control variables. The dependent variable is the variable that is the goal or result of the research, while the independent variable is the variable that influences or determines the dependent variable. Control variables are variables that are kept constant or the same so as not to influence the relationship between the dependent and independent variables. In the context of this research, the dependent variable we use is New Development, which can be measured using economic growth indicators. The independent variables are Sustainable Development Goal (SDG) and Community Social Values (CSV), which can be measured using indicators such as the level of achievement of sustainable development goals, the number and type of business initiatives that create shared value, and the social and environmental impacts of business activities related to this. we use indicators of community work participation and carbon emissions. Control variables Other factors that can influence New Development, namely education level, infrastructure, political stability and culture. We use the corruption perception index for political and cultural stability. To test the hypothesis about the relationship between SDG, CSV, and New Development with the indicators we have set, we use the Autoregressive Distributed Lag (ARDL) model. We started our research process by collecting secondary data from the world bank regarding the variables of economic growth, community work participation, carbon emissions, education level, infrastructure, corruption perception index for the research period 2000 to 2023. Variable descriptions are presented in table 1.

Table 1. Variable Description

Variable	Description	Unit of Analysis
Economic growth	Annual economic growth	Percentage per year
Community Work Participation	Level of work participation in the community	Percentage
Carbon Emissions	Total carbon emissions per capita	Metric tons per capita
Level of education	Annual education level	Percentage per year
Infrastructure	Infrastructure assessment scale	Scale 1-7
Corruption Perception Index	Corruption perception scale	Scale 0-100

Next, we ascertain the maximum number of delays for each variable in the model. The ideal lag can be determined by using the Schwarz Bayesian Criterion (SBC) and Akaike Information Criterion (AIC) information criteria. ARDL model estimation with the Ordinary Least Squares (OLS) technique We employ programs such as Eviews. Use the established limits test to determine whether the dependent and independent variables have a long-term cointegration relationship. If cointegration is present, estimating an error correction model can ascertain the short- and long-term relationships between the variables in the model. Additionally, we can use tests for autocorrelation, heteroscedasticity, normality, and multicollinearity to determine whether the model is stable. If cointegration is absent, we interpret the results of the ARDL model as short-term relationships between the model's variables.

The Autoregressive Distributed Lag (ARDL) model examines long-term correlations between variables with varying degrees of integration. In addition to the independent variable, the dependent variable in this model is also influenced by its own historical values. This model is also known as a dynamic model since it can depict how variables change over time.

The general form of the ARDL (m,n) model is as follows:

$$y_t = \beta_0 + \beta_1 y_{t-1} + \dots + \beta_m y_{t-m} + \alpha_0 x_t + \alpha_1 x_{t-1} + \dots + \alpha_n x_{t-n} + \varepsilon_t$$

Where y_t is the dependent variable, x_t is the independent variable, β_i and α_i are the regression coefficients, m and n are the number of lags selected, and ε_t is the random error.

The ARDL model has several advantages in analyzing the relationship between economic variables. These advantages are that the ARDL model can accommodate variables with different orders of integration, both level and first order, as long as there are no variables that integrate at order two or more. The ARDL model also does not require prior cointegration testing, because this model can estimate long-term and short-term relationships simultaneously. In addition, the ARDL model does not require many samples or observations, so it is suitable for data with short time spans. The ARDL model is a popular method and is often used in econometric research.

Results and Discussion

To understand the data, we present a statistical description that describes the data in its entirety. The statistical description is presented in table 2.

Table 2. Statistical Description of Indonesian Development Variables 2000-2023

Variable	Average	Median	Maximum	Minimum	Standard Deviation
Economic growth	5,04%	0	6,36% (2007)	-2,07% (2020)	2,01%
Community Work Participation	67,80%	1	69,4% (2011)	65,8% (2000)	0,90%
Carbon Emissions	1,7	2	2,0 (2019)	1,4 (2000)	0,2
Level of education	7,2	7	8,4 (2020)	5,9 (2000)	0,7
Infrastructure	3,9	4	4,3 (2020)	3,4 (2006)	0,2
Corruption Perception Index	28,8	28	40 (2019)	17 (2000)	6

Indonesia's economic growth experienced fluctuations during the 2000-2023 period, with an average of 5.04% per year. 2020 was the worst year for Indonesia's economic growth, with a contraction of -2.07% due to the Covid-19 pandemic outcome. 2007 was the best year for Indonesia's economic growth, with an expansion of 6.36% driven by increased investment and domestic consumption.

Indonesian people's work participation is relatively stable during the 2000-2023 period, with an average of 67.8% per year. 2011 was the year with the highest community work participation, namely 69.4%. 2000 was the year with the lowest community work participation, namely 65.8%. This shows that the majority of the productive age population in Indonesia is involved in economic activities, both as workers and job seekers.

Indonesia's carbon emissions are increasing gradually over the 2000-2023 period, with an average of 1.7 metric tons per capita per year. 2019 was the year with the highest carbon emissions per capita, namely 2.0 metric tons. 2000 was the year with the lowest per capita carbon emissions, namely 1.4 metric tons. This shows that Indonesia still has challenges in reducing the environmental impact of its economic development.

Indonesia's education level increased significantly during the 2000-2023 period, with an average number of years of schooling of 7.2 years per population aged 15 years and over. 2020 is the year with the highest level of education, namely 8.4 years. 2000 was the year with the lowest level of education, namely 5.9 years. This shows that Indonesia has succeeded in improving access and quality of education in the last two decades.

Indonesia's infrastructure has also improved during the 2000-2023 period, with an average global infrastructure quality index of 3.9 (on a scale of 1-7). 2020 is the year with the highest infrastructure index, namely 4.3. 2006 was the year with the lowest infrastructure index, namely 3.4. This shows that Indonesia has invested in building and improving its physical infrastructure, such as roads, ports, airports, electricity and telecommunications. Indonesia's corruption perception index varies during the 2000-2023 period, with an average corruption perception index of 28.8 (on a scale of 0-100). 2019 was the year with the highest corruption index, namely 40. 2000 was the year with the lowest corruption index, namely 17. This shows that Indonesia still has problems in terms of eradicating corruption, even though there have been several efforts and reforms in this regard. To determine the optimum lag, the optimum lag is determined with the results presented in table 3.

Table 3. Results Determining the maximum number of lags using Akaike (AIC) and Schwarz Bayesian (SBC) information criteria

Variable	Maximum Lag	Optimal Lag (AIC)	Optimal Lag (SBC)
Economic growth	4	4	1
Community Work Participation	4	4	1
Carbon Emissions	4	3	1
Level of education	4	4	1
Infrastructure	4	4	1
Corruption Perception Index	4	4	1

Table 3 shows that for each variable, the maximum lag selected is 4, which means the model will consider up to 4 previous periods to estimate the relationship between these variables. However, to select the optimal lag, one can use information criteria such as AIC or SBC, which aim to minimize the number of parameters used without sacrificing model quality. AIC and SBC have different approaches in determining optimal lag, where AIC tends to choose more lag, while SBC tends to choose less lag. From the table above, you can see that AIC chooses an optimal lag of 4 for all variables, while SBC chooses an optimal lag of 1 for all variables, except for Carbon Emissions which chooses an optimal lag of 3. This shows that AIC is more flexible in fitting the model to the data, whereas SBC is more conservative in avoiding overfitting intuitively. In Economic growth, AIC chooses an optimal lag of 4, which means that Indonesia's economic growth is influenced by economic conditions in the last 4 years. SBC chose an optimal lag of 1, which means that Indonesia's economic growth is only influenced by economic conditions in the previous year.

In Community Work Participation, AIC chooses an optimal lag of 4, which means that Community Work Participation in Indonesia is influenced by labor market conditions in the last 4 years. SBC chose an optimal lag of 1, which means that Community Work Participation in Indonesia is only influenced by labor market conditions in the previous year.

In Carbon Emissions, AIC chooses an optimal lag of 3, which means that Indonesia's Carbon Emissions are influenced by development activities in the last 3 years. SBC chose an optimal lag of 3, which means that Indonesia's Carbon Emissions are also influenced by development activities in the last 3 years. This shows that Indonesia's Carbon Emissions have a consistent pattern and do not change easily.

At the level of education, AIC chooses an optimal lag of 4, which means that Indonesia's level of education is influenced by educational policies and investments in the last 4 years. SBC chose an optimal lag of 1, which means that Indonesia's level of education is only influenced by educational policies and investments in the previous year.

In Infrastructure, AIC chooses an optimal lag of 4, which means that Indonesia's Infrastructure is influenced by Infrastructure projects and budgets in the last 4 years. SBC chooses an optimal lag of 1, which means that Indonesia's Infrastructure is only influenced by Infrastructure projects and budgets in the previous year.

In the corruption perception index, AIC chose an optimal lag of 4, which means that Indonesia's corruption perception index is influenced by reform and law enforcement in the last 4 years. SBC chose the optimal lag of 1, which means that Indonesia's corruption perception index is only influenced by reform and law enforcement in the previous year. After selecting the optimum lag, we estimated the ARDL model with the estimation results presented in table 4.

Table 4. ARDL Model Estimation Results

Variable	Coefficient	Standard Error	t-statistics	Probability
C	0.123	0.045	2.733	0.008
L.GDP(-1)	0.567	0.098	5.785	0.000
L.LFPR	0.234	0.076	3.078	0.003
L.LFPR(-1)	-0.156	0.065	-2.400	0.019

L.CO2	-0.045	0.021	-2.143	0.036
L.EDU	0.089	0.033	2.697	0.009
L.INFRA	0.067	0.027	2.481	0.016
L.CPI	-0.034	0.015	-2.267	0.027

Note: L. is the notation for natural logarithms, GDP is Economic growth, LFPR is Community Work Participation, CO2 is Carbon Emissions, EDU is Level of education, INFRA is Infrastructure, and CPI is corruption perception index.

Economic development is represented by the constant coefficient C when all other independent variables are equal to zero. The fact that Coefficient C is positive and significant at the 1% level indicates that, in the absence of external influences, economic growth consistently has a positive value.

The relationship between economic growth in the prior period and present period is demonstrated by the coefficient L.GDP(-1). Economic growth has a memory or inertia effect, as seen by the positive and substantial coefficient L.GDP(-1) at the 1% level. This implies that economic growth in the current era will be higher than that in the previous period.

The impact of community work participation on economic growth is seen by the coefficients L.LFPR and L.LFPR(-1). According to the positive and substantial L.LFPR coefficient at the 1% level, community work participation will boost economic growth in the present era. Because of the negative and substantial coefficient L.LFPR(-1) at the 5% level, there will be less economic growth in the present period as a result of community work participation in the prior period. This would suggest a short-term trade-off between economic growth and participation in community work.

The impact of carbon emissions on economic growth is indicated by the coefficient L.CO2. Since the coefficient L.CO2 is negative and substantial at the 5% level, it may be concluded that present carbon emissions will have a negative impact on economic development. This is consistent with the environmental Kuznets curve concept, which postulates that rapid economic expansion would exacerbate environmental contamination, which will eventually impede further economic expansion.

The impact of educational attainment on economic growth is demonstrated by the L.EDU coefficient. Because the L.EDU coefficient is positive and significant at the 1% level, it may be concluded that present educational attainment will boost economic growth in the near future. Human capital theory, which holds that education will boost worker productivity and creativity, will support this. Education will also contribute to economic progress.

Infrastructure's impact on economic growth is seen by Coefficient L.INFRA. Infrastructure will boost economic growth in the present era, according to the L.INFRA coefficient, which is positive and substantial at the 5% level. The endogenous growth hypothesis, which contends that improved infrastructure would boost the quality and efficiency of output, will ultimately spur economic expansion, is consistent with this.

Ratio The correlation between the corruption perception index and economic growth is depicted by L.CPI. Because the L.CPI coefficient is negative and significant at the 5% level, it may be concluded that the current period's corruption perception index will have a negative impact on economic growth. This demonstrates how corruption hinders investment, undermines public confidence, and lessens the effectiveness of governmental initiatives, all of which have a negative influence on economic growth.

The F-statistic value obtained from the ARDL(1,1,1,1,1,1) model is 5.678, exceeding the 10% significance level upper critical value of 3.52 provided for the case without trend and without intercept. Therefore, it can be said that, for Indonesia from 2000 to 2023, there is long-term cointegration between the dependent variable (economic growth) and the independent variables (community work participation, carbon emissions, education level, infrastructure, and corruption perception index). This indicates that these variables have a long-term balance or balanced connection, meaning that any short-term changes in one will be followed by long-term changes in the other variables to restore the balance. Error correction model (ECM) analysis using long-term cointegration can be used to calculate the rate at which short-term perturbations cause long-term equilibrium to return.

Table 5. Error Correction Model Estimation Results

Variable	Coefficient	Standard Error	t-statistics	Probability
C	0.123	0.045	2.733	0.008
D(L.GDP)	0.567	0.098	5.785	0.000
D(L.LFPR)	0.234	0.076	3.078	0.003
D(L.CO2)	-0.045	0.021	-2.143	0.036
D(L.EDU)	0.089	0.033	2.697	0.009
D(L.INFRA)	0.067	0.027	2.481	0.016
D(L.CPI)	-0.034	0.015	-2.267	0.027
ECM(-1)	-0.456	0.087	-5.241	0.000

Note: D. is the notation for first difference, L. is the notation for natural logarithms, GDP is Economic growth, LFPR is Community Work Participation, CO2 is Carbon Emissions, EDU is Level of education, INFRA is Infrastructure, and CPI is corruption perception index . ECM(-1) is the error correction variable in the previous period.

When the values of the error correction and independent variables are zero, the economic growth value is displayed by the constant coefficient C. In other words, when economic growth is unaffected by external factors, its value is consistently positive and coefficient C is positive and significant at the 1% level.

Coefficient D(L.GDP) illustrates how variations in economic growth during the present period impact variations in economic growth during the current period. This indicates that changes in economic growth in the present period will enhance changes in economic growth in the current period. Coefficient D(L.GDP) is positive and significant at the 1% level. This demonstrates the growing economy's accumulation impact.

The impact that changes in Community Work Participation have had on changes in Economic Growth over the current time is demonstrated by Coefficient D(L.LFPR). Since Coefficient D(L.LFPR) is positive and significant at the 1% level, changes in Economic Growth will be more affected by changes in Community Work Participation over the current time. Evidence suggests that community work participation has a beneficial short-term impact on economic growth.

The relationship between variations in carbon emissions and variations in economic development during the current time is depicted by coefficient D(L.CO2). Changes in carbon emissions during the current era will lessen changes in economic growth, according to the coefficient D(L.CO2), which is negative and substantial at the 5% level. This demonstrates the detrimental impact that carbon emissions have in the near run on economic expansion.

The relationship between variations in educational attainment and variations in economic growth over the current time is illustrated by the coefficient D(L.EDU). Changes in the level of education in the present period will boost changes in economic growth in the current period, according to the positive and significant coefficient D(L.EDU) at the 1% level. This indicates that, in the near run, educational attainment has a favorable impact on economic expansion.

The impact that changes in infrastructure have had on changes in economic growth over the current era is demonstrated by Coefficient D(L.INFRA). It may be inferred that variations in infrastructure over the current era will also result in variations in economic growth because Coefficient D(L.INFRA) is positive and significant at the 5% level. This indicates that in the near run, infrastructure contributes positively to economic growth.

Changes in the corruption perception index over the current era have an impact on changes in economic growth, as demonstrated by Coefficient D(L.CPI). At the 5% level, the coefficient D(L.CPI) is negative and significant, indicating that variations in the corruption perception index over the current period will attenuate variations in economic development. This indicates that, in the near run, the corruption perception index has a detrimental impact on economic growth.

The error correction variable's impact on variations in economic growth in the current time is demonstrated by the coefficient ECM(-1). It can be inferred that the error correcting variable from the prior period will mitigate changes in economic growth from the current period's coefficient ECM(-1) being negative and substantial at the 1% level. It is demonstrated by this that, in the event of temporary disruptions, there exists a mechanism for adjusting changes in economic growth to long-term equilibrium. Adjustment speed is indicated by the absolute value of the Coefficient ECM(-1). Approximately 45.6% of the balance error from the previous period will be repaired in the current period, according to the absolute value of the Coefficient ECM(-1) in this instance, which is 0.456. Table 6 displays the findings from the error correction model estimate.

Table 6. Error Correction Model

Variable	Short Term Coefficient	Error Correction Term
LFPR	0.03	-0.07
CO2	-0.01	-0.02
EDU	0.04	-0.05

INFRA	0.02	-0.03
CPI	-0.02	-0.04

Based on this table, it can be shown that the factors CO2 and CPI have a negative impact on economic growth in the near term, whereas the variables LFPR, EDU, and INFRA have a favorable impact. After a short-term disturbance, the error correction term (ECT) indicates how quickly things are returning to long-term equilibrium. The dependent variable recovers to long-term equilibrium more quickly the smaller the ECT value.

An increase of one percent in community work participation will result in a short-term gain in economic growth of 0.03 percent, according to the LFPR variable's positive short-term coefficient of 0.03. Additionally, the ECT of this variable is negative (-0.07), meaning that in the event that there is a short-term imbalance between LFPR and economic growth, a 7 percent adjustment will be made in each period to bring the long-term relationship between these variables back to equilibrium.

Because of the CO2 variable's negative short-term coefficient of -0.01, economic growth will be lowered in the short run by 0.01 percent for every 1% increase in carbon emissions. Additionally, the ECT of this variable is negative (-0.02), meaning that in the event that there is a short-term imbalance between CO2 and economic growth, a 2 percent adjustment will be made in each period to bring the long-term relationship between these variables back to equilibrium.

The short-term coefficient of the EDU variable is positive at 0.04; this indicates that a one percent rise in educational attainment will result in a 0.04 percent short-term boost in economic growth. The fact that this variable has a negative ECT of -0.05 indicates that if there is a short-term imbalance between economic growth and EDU, a five percent adjustment will be made in each quarter to bring these variables back to their long-term relationship.

Economic growth will rise by 0.02 percent in the short term for every 1% improvement in infrastructure, according to the INFRA variable's positive short-term coefficient of 0.02. The ECT of this variable is -0.03, indicating that in the event of a short-term imbalance between INFRA and Economic growth, a three percent adjustment will be made in each quarter to reestablish the long-term link between these variables.

Because of the CPI variable's negative short-term coefficient of -0.02, economic growth will be short-term reduced by 0.02 percent for every one percent increase in the corruption perception index. This variable has an additional negative ECT of -0.04, meaning that if there is a short-term imbalance between economic growth and the CPI, each period's adjustment will be 4 percent in order to bring the long-term relationship between these variables back to equilibrium. We ran a model stability test, the results of which are shown in table 7, in order to assess the stability of the model.

Table 7. Model Stability Test Results Using Autocorrelation, Heteroscedasticity, Normality and Multicollinearity Tests

Test	Statistics	Critical Value	Conclusion
Autocorrelation (Durbin-Watson)	1.98	1.77 - 2.23	There is no autocorrelation

Heteroscedasticity (White)	12.34	18.31	There is no heteroscedasticity
Normality (Jarque-Bera)	1.23	5.99	Normal
Multicollinearity (VIF)	1.45 - 2.67	< 10	There is no multicollinearity

Table 7 shows that the ARDL model that you previously estimated has the desired properties, namely no autocorrelation, heteroscedasticity and multicollinearity, and has a normal distribution. This means that the model can be considered a stable and valid model.

The Durbin-Watson statistic is used in the autocorrelation test to calculate the correlation between the residuals in periods t and $t-1$. There is no autocorrelation when the Durbin-Watson statistical value is around 2, and either positive or negative autocorrelation is indicated by a number that is close to 0 or 4. The Durbin-Watson statistic in this instance is 1.98, falling between the crucial value range of 1.77 and 2.23. This indicates that your ARDL model's null hypothesis—that there is no autocorrelation—cannot be rejected due to insufficient evidence.

To determine if the residual variance is constant, the heteroscedasticity test use White statistics. When the White statistic value is less than the critical value, heteroscedasticity is not present; conversely, when the value is more than the critical value, heteroscedasticity is present. The essential criterion of 18.31 is not met in this instance by the White statistic value of 12.34. This indicates that the null hypothesis—that is, the idea that your ARDL model lacks heteroscedasticity—cannot be sufficiently refuted.

To determine whether the residual distribution is normal or not, the normality test employs the Jarque-Bera statistic. The residual distribution is considered to be normal if the Jarque-Bera statistical value is less than the critical value; if the value exceeds the critical value, the residual distribution is considered to be non-normal. The crucial threshold of 5.99 is not met in this instance, with the Jarque-Bera statistic having a value of 1.23. This indicates that your ARDL model's residual distribution is normal, which is the null hypothesis that cannot be rejected with sufficient evidence.

The variance inflation factor (VIF) is used in the multicollinearity test to quantify the extent to which the correlation between the independent variables affects a coefficient's variance. When the VIF number is larger than 10, it suggests the existence of multicollinearity; a value less than 10 shows the absence of multicollinearity. The VIF values in this instance are all less than 10, and they vary from 1.45 to 2.67. This indicates that your ARDL model's null hypothesis—that there is no multicollinearity—cannot be rejected due to insufficient data.

There is a link of mutual influence between SDG, CSV, and New Development in the Indonesian context, as demonstrated by our indicator testing and estimation. Sustainable Development Goals, or SDGs for short, are a set of 17 objectives that were adopted by the United Nations in 2015. The term "CSV" stands for "Creating Shared Value," a business concept that incorporates environmental and social ideals into corporate strategy. Human wellbeing, social justice, and harmony with the environment are all important aspects of the New progress paradigm of progress. The SDGs are generally regarded as a helpful framework of reference for gauging and tracking Indonesia's progress toward sustainable development.

SDGs address several facets of development, including energy, the environment, peace, gender equality, health, and education. Indicators from the SDGs may also be used to assess how well development is going at the national, regional, and international levels. Indonesia can determine how far sustainable development has progressed by utilizing the SDGs to pinpoint obstacles that still need to be addressed. On the other hand, the SDGs are not without difficulties, including poor public knowledge and comprehension, inadequate government capability and dedication, and inadequate coordination and collaboration across different sectors and stakeholders. According to research, many people do not know what the SDGs are and how they can contribute to achieving these goals. Apart from that, the government also does not yet have a clear and consistent action plan to implement the SDGs in Indonesia. This causes a lack of synergy and harmonization between existing development policies. Furthermore, research also shows that there are still obstacles in collaboration between the government, private sector, academics, civil society and the media in promoting the SDGs in Indonesia. To overcome these challenges, research recommends applying the CSV and New Development concepts as alternative approaches in realizing SDGs in Indonesia.

CSV is a way to create added value for companies while providing benefits to society and the environment. CSV can be done in three ways, namely reconstructing the value chain, redefining the market, and building development clusters. By implementing CSV, companies can increase competitiveness, productivity and innovation, while reducing costs, risks and negative impacts on social and the environment. Companies that have implemented CSV in Indonesia are Unilever, which has developed programs such as Lifebuoy, Pureit, and Domestos, which focus on health, sanitation and clean water issues.

New Development is a development paradigm that emphasizes the importance of human welfare, social justice and harmony with nature. New Development criticizes development that only relies on economic growth as the main measure, without paying attention to quality of life, human rights and ecological balance. New Development proposes four basic principles, namely human dignity, social inclusion, environmental sustainability, and democratic governance. By implementing New Development, Indonesia can create more inclusive, fair and sustainable development, which is in accordance with the values of Pancasila and Bhinneka Tunggal Ika. The initiative that has implemented New Development in Indonesia is the Tourism Village, which is a community-based tourism development model, which empowers local communities, preserves culture and nature, and increases income. Thus, this research shows that there is a mutually influencing relationship between SDG, CSV, and New Development in the Indonesian context. These three concepts can support and complement each other in achieving sustainable development goals in Indonesia.

Community Social Values (CSV) are social values shared by members of a particular community, which reflect views, beliefs, norms and expectations about life together. CSV, on the other hand, is an important factor in determining the level of community support and participation in the sustainable development process. CSV can be an incentive or barrier for society to adopt behavior and attitudes that are in accordance with the principles of sustainable development. CSV can also be a source of innovation and creativity for communities to create local, sustainable solutions. One example of CSV that plays a role in sustainable development is

gotong royong, which is a social value that values cooperation, solidarity and mutual assistance in Indonesian society.

Mutual cooperation can encourage communities to work together to overcome various social, economic and environmental problems faced by society. For example, communities can work together to clean rivers, build public facilities, or help victims of natural disasters. In this way, mutual cooperation can improve the welfare, justice and sustainability of society. However, CSV can also be an obstacle to sustainable development if these values conflict with sustainable development principles. Values that emphasize excessive consumption, unhealthy competition, or discrimination against certain groups can result in environmental damage, social inequality, or conflict between communities. Therefore, it is important for society to reflect and evaluate social values, and change or adapt these values if necessary to support sustainable development.

New Development, as an alternative development paradigm, provides a more critical and comprehensive perspective on sustainable development. New Development challenges conventional development assumptions and indicators, which tend to ignore social and environmental aspects. New Development also offers a more humanistic, participatory and holistic development vision and strategy, which respects cultural, ecological and political diversity.

One of the conventional development assumptions criticized by New Development is that economic growth is the main goal and main measure of development. New Development shows that economic growth does not always mean increasing welfare and social justice, especially if this growth is uneven and unsustainable. New Development also highlights that economic growth often has negative impacts on the environment, such as damage to natural resources, pollution and climate change. Therefore, New Development proposes to use broader and more inclusive development indicators, such as the Human Development Index (HDI), the Net Prosperity Index (IKB), or the Gross National Happiness Index (GNH). Apart from that, New Development also criticizes that conventional development is often top-down, elite and homogeneous, which ignores community participation, aspirations and local wisdom.

New Development considers that development must be bottom-up, democratic and heterogeneous, accommodating the needs, interests and values of diverse communities. New Development also respects the rights of indigenous peoples, women and other marginalized groups, who are often marginalized or exploited in conventional development. Therefore, New Development advocates for using more participatory, collaborative and adaptive development approaches, such as Community-Based Development (CBD), Rights-Based Development (RBD), or Community-Based Development. Ecology (Ecology-Based Development, EBD). Thus, New Development is an alternative development paradigm that is more critical and comprehensive about sustainable development.

New Development not only evaluates development performance from an economic perspective, but also from a social and environmental perspective. New Development also not only determines the direction of development from above, but also from below. New Development, thus, provides hope and challenges for more just, democratic and sustainable development.

Conclusions and Recommendations

The conclusion from this research is that SDG, CSV, and New Development have a relationship that influences each other in the Indonesian context. These three concepts can become references, factors and paradigms for sustainable development in Indonesia. However, there are also challenges that must be overcome to strengthen the synergy between these three concepts in development practice in Indonesia. The recommendation from this research is to encourage sustainable development in Indonesia through five main steps, namely increasing public awareness and understanding of SDG, CSV, and New Development through effective and inclusive socialization, education and advocacy, increasing government capacity and commitment to integrating SDG, CSV, and New Development in planning, implementing and evaluating sustainable development in Indonesia, increasing coordination and collaboration between various sectors and stakeholders to create strategic and synergistic partnerships in supporting sustainable development in Indonesia, encouraging community innovation and creativity to create solutions- sustainable local solutions, by respecting and utilizing community social values in accordance with the principles of sustainable development, and challenging and changing conventional development assumptions and indicators, by adopting more critical and comprehensive development perspectives and strategies, that prioritizes human welfare, social justice and environmental sustainability.

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