

## A Literature Review of the Participation of Foreign Direct Investment in Sustainable Development Achievement in Developed and Developing Countries

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**ABSTRACT:** Foreign Direct Investment (FDI) is considered a vehicle for internationalisation and economic growth. It has known socio-politico-economic benefits to home and host country. FDI's economic, social, and environmental contribution to several countries' Sustainable Development (SD) has widely been empirically studied. This paper reviewed how FDI helps SD achievement in developed and developing countries, its implications are discussed. Positive implication of FDI was found in both countries, and considered a strong vehicle in SD achievement. However, FDI may as well negatively impact SD achievement. Recommendations were suggested for positive FDI effects on countries' SD and topics proposed for further study.

**KEYWORDS:** Foreign direct investment, Long-term, Sustainable Development, Sustainable Development Goals, Sustainable Investment.

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### I. Introduction

The world population, estimated at 2.5 billion in 1950 has surpassed 7 billion and projected to grow to over 9 billion, an approximate 5.6% increase by 2043. Despite this increased trend, population growth across regions and countries are complex and divergent in nature. Developing countries are characterized by rapid population growth; in contrast, developed countries experience a decline and rapid ageing population. Depending on population growth nature, it may increase pressure on the existing limited and scarce natural resources hence contributing to climate change and environment degradation.

To policy makers, a dynamic population growing pattern presents different challenges which affect consumption, production, employment and income distribution, thus directly impact national development. Solution to such challenges require intensive capitalization, increased foreign exchange and better technology to enhance competition and access to foreign markets; this has resulted in liberalized economies and implementation of FDI attracting regulations by countries. This is true as shown by opening up of world economies in late 1980s. FDI inflows exponentially increased worldwide, enabling resource pooling for host nations. However, this created an ambivalent scenario to the economic and environmental development of the countries in question.

FDI as a vehicle to achieve economic growth has helped both developed and developing countries to boost their economies. The past three decades, China has gradually shifted from a closed, state-planned economy to an increasingly open and internationally integrated market [1]. Despite FDI's positive role in global economic growth, it has contributed to environment degradation [2]. Looking at FDI consequences, due to lack of tight policies in FDI attracting process, the SD concept has been suggested by UN member States as a new criteria to gauge development with the objective to save a threatened world. Studies and political governance agree on FDI as a route to achieving SD goals in developed and developing countries [3]. Common countries studied were; Singapore, France, South Korea and some developed EU countries, and developing countries; China, India, Nigeria.

The aim of this review was to give insight on the role (social, economic and environmental) played by FDI investment in SD, their linkages and benefits in developed (Singapore, France, South Korea and some developed EU countries) and developing (China, India, Nigeria) countries through empirical and literature searches. The findings will help to make recommendations and suggest topics for further studies.

## **II. Concept of Foreign Direct Investment**

In the 1980s, increased FDI flow awareness led to FDI being considered as a GDP component or good predictor of stability and long term growth. In the process of FDI related investment; key attracting factors have been related to resource-seeking, market-seeking, efficiency-seeking and strategic asset-seeking in host country.

FDI is defined as ‘investment made by a direct investor (company or individual) of one country in business interests in another country in form of either establishing business operations or acquiring business assets in the other country, such as ownership or controlling interests in a foreign company’ (Investopedia Financial Dictionary). Thus, “ownership control” is a condition for FDI. Based on views by other authors, “managerial control” over direct investment enterprise is preferred as the core condition for FDI. For International organizations, “Lasting interest” and “direct or indirect ownership of 10%” are conditions for FDI. Therefore, this distinguishes it from Foreign Portfolio Investment (FPI) which doesn’t require active management or control. Using Organization for Economic Cooperation and Development (OECD) as a benchmark, FDI is an investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor. Thus, lasting interest implies existence of a long-term relationship between the direct investor and direct investment enterprise. Direct or indirect ownership of 10% or more of voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship [4]. Despite their difference, all definitions share common ideas of “direct investor, investing in a host country’s direct investment enterprise” and “managerial control or ownership of interest”, except for OECDs’ definition which opted for a significant degree of influence on management. Hence, FDI could be defined as lasting investment operated by a direct investor in a direct investment enterprise existing in another economy with at least 10% shareholdings determining its managerial control or degree of influence on management of the direct investment enterprise.

### **2.1 Drivers of FDI**

With advantage to be realised through three main ways. Firstly; Greenfield investment which uses wholly owned enterprises (WOEs) mode, Secondly; “Association” which operates mostly under the Joint Venture mode where the foreign investor buys an interest in a local company or a local firm acquires an interest in an existing foreign firm or both foreign and local entrepreneurs jointly form a new enterprise or working temporally on a project and Lastly, cross-border merger and acquisition, which operates through horizontal or vertical mergers where control of assets is transferred from a local to a foreign company with the former ceases to exist and becomes an affiliate to the latter, FDI presents key drivers involved in his attractiveness. Similar factors attract FDI inflows for both developing and developed countries, for instance; domestic market size and stability, GDP status, business environment and modern infrastructure influence FDI flows [5]. For example in India, a study cited; infrastructure development, reduced bureaucracy, quality and quantity of available talent and stable economic policies as key drivers for FDI inflow improvement [6]. In a developed country (e.g. United States of America) similar drivers were found [7]. However, compared to developing countries, developed countries have technological, managerial skill, human capital and industrial infrastructure advantages.

### **2.2 Effect of FDI**

It is widely recognized and accepted that FDI produces multiple benefits to the recipient country, but could also have some disadvantages [8]. Politically, FDI has advantages like enhancing domestic policy in host countries especially developing ones. Most developing countries that attract FDI implement politics which enact international regulations into their local policies. To attract more FDI, in 1979, China adopted an economic reform strategy to open up. The following years, this led to China adhering to World Trade Organization regulation, thus improving its’ domestic trade politics and its environment protection during the process of international trade. However, in the effort to please foreign firms holding large stock of FDI investment in a host country, domestic politics may negatively impact the host country [9]; indirectly leading to a development and growth imbalance between domestic and foreign firm. Economically, FDI is beneficial to both host and home country of the FDI investment. In host country, FDI can foster economic growth through means of adoption of foreign technology and technical know-how transfer among other. This happens through licensing agreements, employee training, introduction of new processes and products [10]; leading to productivity growth in host country [11]. The foreign firms introduce to host country market a vertical or horizontal investment. This improves the trading system of host country by developing its domestic trading structure (mostly developing countries) or opening-up the host country to international trade. The latter leads to multiple trade opportunities which can improve host country balance of trade. However, FDI can also have negative effects on host country’ economic growth through technological spill overs negatively affecting economic growth if the host country becomes dependent on technologies introduced by foreign firm [12]. This has been found to lead to downsizing,

creating unemployment. Indirectly, the country's GDP may drop due to imbalance between government expenditure and taxable income, thus negatively affecting the economy. FDI could also deteriorate the host country's economic growth by leading domestic firms to bankruptcies due to market competition [13]. If unchecked, host country may fall into a financial crisis, negatively impacting economic growth through an economic slow-down and stagnation. Secondly, FDI inflows enhance host country market competition thus improving economic growth [14]. Introduction of an FDI investment in a host country's domestic market increases competitiveness in the specified industry. This challenges domestic firms to improve their operations in an attempt to sustainably compete with foreign firms, thus directly contributing to host country economic growth. Based on "endogenous growth theory", FDI can contribute to host country economic growth through social means. FDI improves human capital [15], an essential input for a country's economic growth, through on-job training.

To the home country; FDI may enhance economic growth through trade growth especially exports. By investing outside, home countries open doors to new international market thus, encouraging local resources to be exported. Also, from return of FDI profit, growth in GNP of home country may be achieved. Nevertheless, FDI also creates unemployment situation in home country due to total transfer of firms to the host country.

### **III. Brundtland Report**

The industrial revolution increased the overall productivity output and boosted economic growth worldwide. With focus on economic growth and development, environmental problems started to emerge. Through UN conference on Human Environment (1972) in Stockholm, governments and international organizations adopted guidelines to eradicate these environmental threats. Related to this, the UN resolution 38/161 "Process of preparation of the Environmental Perspective to the Year 2000 and beyond" adopted in 1983 purposely to solve the exacerbating global and local environmental burdens. This resolution gave birth to the World Commission on Environment and Development (WCED) also known as the Brundtland commission.

Brundtland report, published in 1987, brought to attention different global threats and challenges. Firstly, it proposed long-term (year 2000 and beyond) environmental strategies to achieve SD. Secondly, it recommended ways environmental concerns could be translated into greater international community co-operation aimed at achieving common and mutually supportive goals. Thirdly, it suggested ways by which the international community can effectively deal with environmental concerns. Lastly, it helped define appropriate efforts needed for long-term environmental protection.

#### **3.1 Strength of the report**

By presenting real facts of a threatened future and the role played by international government economies, the report brought to attention of the international community clearly defined threats, causes, consequences and proposed solutions. The report highlighted multiple social and environmental issues. For instance, urban cities growth increased population growth and density and contributed to environmental degradation if poorly managed [16]. Therefore, using tangible evidence, recommendations such as population growth control and social security provision were made to policy makers on different environmental and social problems encountered by different countries at their level of development.

#### **3.2 Limitations of the report**

The Brundtland report had shortcomings as it failed to provide practical rules and goals to the international community; for population growth problem, the report only provided guidelines for improving growth quality but no practical means of achieving them. It lacked statistical forecasts for environmental degradation impact on human quality of living; indices like human development index (HDI), environmental performance index (EPI), and gross domestic product (GDP) per capita commonly used forecasts aid in decision making were lacking. The report also failed to clearly distinguish guidelines and roles to be played by developed and developing countries; given their differing economic, social and environmental sectors, despite sharing a common vision of SD. Thus, the report failed to customize and adapt its guidelines to individual countries. Brundtland report's purpose to the international community brought to the forefront issues of importance pertaining environmental degradation among others. Considering its strength and shortcomings, this review further discussed the reports importance and relationship to SD.

### **IV. Sustainable Development Concept**

The concept of SD is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs [16]. This definition considers development to include environmental, economic and social aspects, while protecting the world from a future upcoming threat [16]. Based on Brundtland report, SD definition has two key concepts 1) "needs" especially for

worlds' poorest, 2) limitations imposed by technology and social organization on environment's ability to meet the present and future needs. Hence, from this, SD is a development accentuated simultaneously on three main pillars of economy, environment and social sector.

However, SD concept has been defined differently by several authors. To some, SD has been based on similar ideas of the Brundtland Report; the transformers [17], defined SD as "a transformation of our society and human relations with the environment was necessary to avoid a mounting crisis and a possible future collapse". To Robert Allen (1980), SD was development likely to achieve lasting satisfaction of human needs and improvement of human life quality. Finally, the World Wide fund for Nature (1991) defined SD as improving human life quality while living within the support ecosystem' carrying capacity. Definitions not in alignment with Brundtland Report were in favour of a sustainable economic efficiency without considering the environment and social part or either the structural changes needed [17]. According to Daly (2007) [18], SD is a stable economic efficiency development based on throughput and not utility, thus encouraging a stable economic growth. Considering all these views, SD may be considered as development against environmental negative externalities due to economical behaviour in our society and encouraging a more integrated economic, social and environmental politics for a stable development.

#### **4.1 Challenges of SD achievement**

Despite the various definitions, no stipulated goals and guidelines on how to achieve SD are present. Based on Brundtland report, guidelines were recommended to enable decision making and several legally binding commitments in line with economic, social and environmental challenges to SD achievement were made by international community at different conferences such as the International Conference on Population and Development (ICPD) and UNCED (The United Nations Conference on Environment and Development). Economically, creation of a balanced economic-environmental growth framework was considered an important challenge for SD achievement. Developing countries (especially ASEAN), looking for stable economic growth tend to adopt a pollution haven in their foreign direct industrial investment policies. This has resulted in either an overuse of natural resources leading to soil destruction, environmental pollution or uncontrolled release of chemicals and materials thus, causing pollution. A comparative case study of China (developing country) and France (developed country) from 2000-2010; both with economic policies that included an environment protection tax on carbon emission. France effectively applied and implemented the policy during this period, and a balanced economic-environment development was observed. However, China was ineffectively implemented, but focused more on economic oriented growth; attracting more industrial FDI by easing its policies (environment protection tax on carbon emission). This created an imbalance in the economic-environment framework, leading to high air pollution commonly reflected by high occurrence of 2.5 PM in Beijing. Most developed countries are faced with challenges related to natural resource overuse during their economic growth process; due to post industrial revolution, when highly industrialized countries depleted their natural resources leading to high environment degradation. This made SD achievement a challenge that required a call for better natural resource management, re-defining industrial technologies into more environmentally friendly and promoting species and environment protection to achieve a worldwide environmental equilibrium.

Human capital development, an important vehicle for economic value creation, can be used as a tool to understand and achieve SD. To create an economic impact; human capital development requires knowledge, good social habits, and personality attributes such as creativity in the population. This acts as an effective agent in the employment market which attracts FDI inflows [19], thus playing an indispensable role in balanced socio-politico-economic way to achieve SD. Social challenges such as gender inequity, low education level, poor food access, unhygienic conditions and unequal job opportunity need to be realized for development to be sustainable. A population with good human capital is a better agent for SD promotion through their daily actions. The French have a better understanding of SD and are able to live in an environmentally sustainable way; for instance, they tend to use biodegradable products or recycling more. In comparison, Nigerians are still facing poor disposal management in their nation. This happens in the presence of legally binding environmental policies in both scenarios.

#### **4.2 Path to achievement**

To achieve SD, the international community took decisive measures to address different existing economic, environmental and social challenges. For example, from the UNCED (1992) conference, world nations were obliged to protect the environment through use of alternative energy sources (e.g. solar and wind power) to replace dependence on fossil fuels. In another conference (ICPD, 1994), right to education and health care were promoted. Also, in the Fourth World Conference on Women (1995), gender equality issues among others were highlighted. At the 2000 UN member summit, developed nations pushed for development goals, commonly referred to as millennium development goals (MDGs), aimed at boosting SD in developing nations.

The MDGs (8 goals) were based on three pillars (economy, environment and social) which are key components for SD achievement, to offer solutions to challenges involved. Economically; MDGs set were; eradicate extreme hunger and poverty by half, develop global partnership for development to address special needs of least developed and developing countries and their financial debts and provide them affordable drugs and technologies. Environmentally; MGDs encouraged sustainability by integrating SD principles into policy to reduce biodiversity loss and provide sustainable sanitation and safe drinking water. Socially; the poorest countries are most vulnerable to social injustices, through MDGs, efforts were made to solve social challenges like achievement of universal primary education, promote gender equality and women empowerment, reduce child mortality and provide the necessities to combat AIDS, malaria and other diseases threatening poorest countries and social sustainability. In-line with this, developing countries set up several special commissions to implement the MDGs to achieve SD in the long run. For example, the African Union (AU) set up a commission called The New partnership for Africa Development (NEPAD).

The MDGs timeline was set for 15 years (2000-2015) and were mostly achieved. In the African region, effective improvements in reducing hunger, declining gender disparities, reduced poverty and improved access to education [20] were met. However, some goals were not successfully achieved; which might be attributed to factors like the financial crisis which destabilized many world economies and increased unemployment level [21]. Also, several factories relocated to countries with less stringent environmental regulations like China, India, and Vietnam. This affected SD achievement through MDGs by causing additional problems such as environmental pollution and increase in number of people living in poverty despite a general poverty reduction. This prompted the international community to set new goals (sustainable development goals, SDGs) with the commitment of all nations for SD achievement. Compared to MDGs, SDGs focused more on sustainable management of present economic, social and environmental aspects as one unit without compromising the future generations' ability to meet their own needs. SDGs are based on a 17 goal agenda, accompanied by 169 targets to be achieved in the next fifteen years (Transforming our world: the 2030 Agenda for Sustainable Development). SDGs' main objectives were to achieve worldwide SD using the three pillars (economic, environment, social); thus SDGs are a continuation of MDGs, except in addition they address more current challenges in SD achievement. Based on new guidelines, economically; responsible industrialization, consumption and production should be achieved for a balanced development. Environmentally, promotion for a better climate and call for urgent action to combat climate change and its impacts, sustainable management of natural resources (marine and land), sustainable management of forests to combat desertification. Socially, new extra goals to MDGs have been added like; promotion of peace, justice and strong institutions through peaceful and inclusive societies. In consideration of different definitions of SD concept, its purpose in rooting for economic and social development while reducing environmental degradation and being achieved through different vehicles such as MDGs and SDGs. Despite the challenges observed and discussed, different vehicles used to achieve SD have resulted in an improved quality of life, gender equality, reductions in air pollution levels, and long term commitment by international community in developing environmentally friendly green technologies among others.

#### **4.3 Significance of Brundtland report to SD achievement**

The Brundtland report provided to the world a new SD concept taking into account its orientation, definition and dimension. However, 30 years after implementation of the concept by the international community, there are still no clear measurable outcomes for SD achieved. Despite the guidelines suggested by Bruntland report; absence of goals has been presented as its main limitation. SDGs, the most recent goals for SD achievement could be the missing link to the Brundtland report for a more holistic SD. SDGs provides practical and achievable goals based on social, economic and environmental aspects to achieve SD worldwide. In other words, SDGs are complementary and more practical guidelines and goals needed to achieve SD while the Brundtland Report created the SD concept. This review will emphasize the use of FDI as an indicator to see its social, economic and environmental performance in alignment with the SD achievement.

### **V. Literature Review On FDI And SD Achievement**

In 1980s and 1990s, the liberalization in foreign capital, particularly FDI was achieved which brought economic growth opportunities to several countries. However, this led to environmental degradation and unsustainable development [22]. To address the negative consequences, based on Brundtland report, recommendations were made to achieve SD. Initiatives like MDGs (2000-2015) and SDGs (2015-2030) have been implemented and still working to achieve SD. Given the evolution of foreign capital flows worldwide, UNCTAD experts have reason to believe that foreign investments have a major potential for achieving SD, hence should be considered as a path for achieving the latter [23]. In order to justify this, many researchers have conducted studies on investment especially on how FDI can help achieve SD in both developed and developing countries. Most of studies used different methodology and mostly analysed FDI contribution to SD achievement

from different standpoints. The present review is proposing to bring accurate outcome to the efficient or not participation of FDI to SD achievement in developed and developing countries.

### 5.1 Research Method

In purpose to be an effective literature review, the present literature mostly used Science Direct, Google Scholar, International Monetary Funds (IMF) and World Bank (WB) database to collect literature and empirical research papers relative to FDI, SD and FDI contribution to SD. A total of 59 papers were collected and can be classified according the “Fig 1”. The most used of them, applied econometrics methodology and few a mix of analyse and comparison data methodology based on different SD’s pillars “TABLE1”.

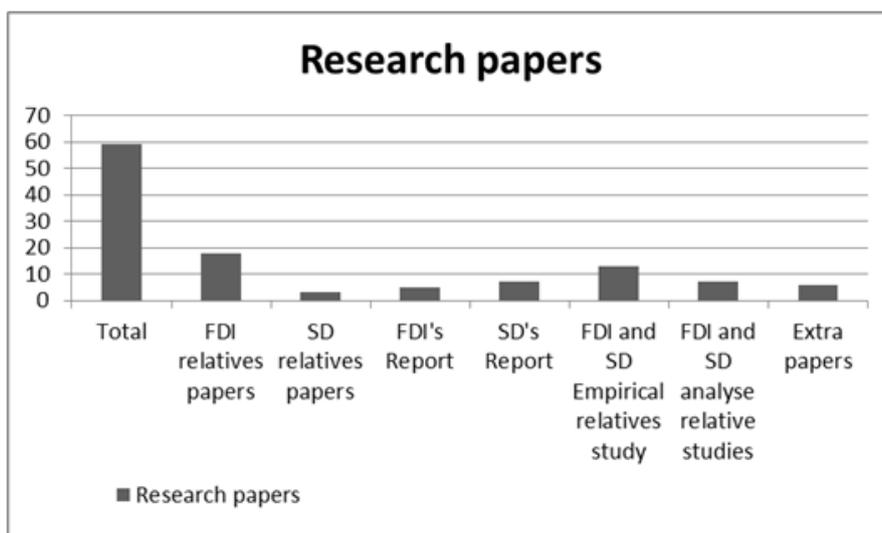


Fig 1

**Table 1**

Country	SD impacted Pillars	Methodology	References
France and South Korea	Economic and Environment	Autoregressive Distributed Lag (ARDL) estimation technique	[24]
BRICS countries	Environment	Standard Reduced-Form random-effect specification. Modelling using	[25]
China	Economic and Environment	Slacks-Based Measure Directional Distance Function (SBMDDF)	[26]
Argentina	Economic and Environment	Economic, policy, Environmental Index, FDI inflows and structure analyse.	[27]
China	Social	Data from: Provinces FDI attractiveness drivers, FDI inflows analyse. Accompanied with development level comparison and analyse.	[28]
India	Environmental, Social	Multi-Variate Regression Model	[6]
EU Region	Environmental	Analyse of data relative to FDI inflows in sector relevant to environment and its impact to the environment improvement.	[29]
Austria, Canada, Denmark, Finland, France, Israel, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, the United Kingdom, and the United States.	Social	Panel Cointegration Model	[30]
China	Environment	Panel Data Regression model	[31]
EU	Environment	Analyse of the Structure and flows of FDI.	[22]
African countries Except South Sudan and Somalia	Social	Panel Regression Methodology	[32]
Ghana	Social	Co-integrated error-correction mechanism.	[19]
Nigeria	Environment	Autoregressive Distributed Lag (ARDL)	[33]
	Economic	Ordinary Least Squares (OLS)	[34]
Singapore	Economy Environment and social	Autoregressive Distributed Lag (ARDL)	[35]

## 5.2 FDI and SD in developed countries

SD as defined earlier, takes into account development based on social, economic and environmental aspects. On the other hand, FDI is considered the main driver for economic growth in a country as it facilitates knowledge and technology transmission, improves employment, boosts productivity, enhances entrepreneurship and contributes to poverty alleviation in host country. In a study by [36] on the theory that FDI is a tool to alleviate poverty in host countries; different developed countries' GDP, exports, inflation, population, life expectancy at birth, primary school pupils, total health expenditure per capita, and residential electricity consumption among others were used as indicators to see FDI impact on SD. The authors found that FDI helped achieve SD with more efficiency in developed countries long-run. [35] Applied a similar approach on Singapore' economic growth, income distribution and environmental quality. Economically; long-run elasticity revealed that FDI in Singapore led to favourable economic growth, one of SD pillars. Thus, FDI long-run has positive effects on developed countries' economic growth [35]. This may help in poverty reduction efficiency.

The social aspect is closely related to economic growth, as it generates a dynamic economic system able to allocate financial sources to social sustainability projects. These projects increase employment due to work force demand, improve life expectancy due to better medical assistance and eradicate poverty in society [37]. [36]in their study on impact of FDI on SD indicators of selected developed countries, revealed that social aspects related to economic growth in developed countries. They affirmed the positive effect of FDI on population, infant mortality, life expectancy and total health expenditure per capita. [30] Examined the long-run effect of FDI on health in fourteen developed countries; found that FDI negatively affected health in developed countries. Moreover, [24]study on impact of FDI and trade openness on three main pillars of SD indicators; growth, income distribution, and environmental quality, in France and South Korea, concluded that higher FDI inflows in France positively impacted income distribution, unlike South Korea, where it instead worsened income distribution inequality. Based on reported studies, it may be possible that in developed countries with dynamic economic systems, FDI may contribute to SD achievement through good allocation of capital stock gained from FDI inflows to social projects [37]; thus contributing to better social life.

Developed countries, today are fighting for a better living environment after decades of natural

resource overuse resulted in environmental degradation. Several solutions have been implemented and adopted to ensure environment quality improvement. For instance, laws such as tax on carbon and strategy such as Europe 2020 are operative in several developed countries to reduce greenhouse gas emissions [22]. Meanwhile, FDI is considered an important driver for a greener way of doing business. [29] Analysed data of developed EU countries sharing similar environmental policies and based on pollution ‘halo’ effect and pollution ‘haven’ hypothesis stark contrast analysed the relevance of FDI for SD achievement. The author concluded that pollution ‘haven’ hypothesis was not applicable in selected developed countries and that FDI was relevant to the environmental sector which ultimately influenced and contributed to SD. Additionally, [22] using structure and FDI flows impact on SD from an environment standpoint in EU countries, revealed that most environmental taxes in EU are composed mainly of energy taxes of which transport fuel taxes represent more than three-quarters, followed by non-fuel transport taxes (21%) and pollution taxes 4%. Manufacturing industries and transport service sectors received the most FDI in the countries analysed. [37] Also analysed the impact of FDI on SD using the linkage between FDI flow and SD based on EU, concluded that environment sector is the most important sector and it needs investments in climate change reduction projects and a greener way of doing business. Thus, in developed countries, FDI may help in achieving SD by its orientation in sectors with stringent environmental regulations [22] and sectors with high environmental impact [29]. This contributes to spread of best environmental practices and clean environment promotion. In recent years, industries have adopted more environment-friendly technologies which have contributed to low carbon economy [25]. Interestingly, during the FDI process, many multinational enterprises are using these technologies, further contributing to reduction of carbon emissions in host country. In [35] study of FDI impact on Singapore’s SD indicators based on model of environmental quality applied, showed that 1% increase in FDI decreased CO<sub>2</sub> emissions released by 0.22%. Therefore, in developed countries, FDI may help to achieve SD through use of environment-friendly technologies during the FDI process, which in turn reduces CO<sub>2</sub> emissions, thereby contributing to a clean environment.

### **5.3 FDI and SD in developing countries**

In developing countries, FDI has widely been recognized as an economic growth-enhancing vehicle due to its impact on the host country’s economy [38]. [39] Used FDI inflows to conduct a study of its impact on India’s economy based on sectors attracting highest FDI equity inflow amount from 2000 to 2013. The results showed that FDI inflows supplemented domestic capital as well as technology and skills of existing companies. Additionally, FDI helped establish new companies thus, contributed to economic growth of the Indian Economy. From this study, we could see that FDI can create a full economic growth. In line with this review’s objective; [40] conducted a study based on past performances to see the role of FDI in India’s retail sector as well as its role in developing India’s society and economy. The study reported that FDI positively impacted India’s economic growth sustainably through promotion of its retail businesses. [41] Studied FDI inflow determinants in 22 Sub-Saharan African countries from 1994-2004, concluded that promoting FDI in Africa or developing countries will lead to long-term economic growth. Similarly, effects of FDI on SD in Nigeria’s Real GDP (1980-2013), [34] showed that FDI increase resulted in an increase of Real GDP or SD in long-run equilibrium. In other words, FDI contributed to SD in Nigeria through long-term Real GDP promotion. To enhance efficiency in the role played by FDI in SD achievement in developing countries, several studies have used both the economic and environmental pillars, commonly known as the green growth concept. Among them, [26] used China (104 cities; 2004-2011) as a case study to focus on comprehensive impact of FDI on host country’s economic growth and environmental protection under a unified framework. The results showed that FDI was helpful in China’s green economic growth and played an active role. Divided into economic and environmental efficiency; FDI promoted China’s green economic growth through promotion of both environmental and economic effects. In developing countries, FDI may be a vehicle for economic growth, and may contribute to SD achievement by means of full and sustainable economic growth through long-term Real GDP growth [34] while promoting environment protection through clean technology transfer.

Socially, proper management of human resource attracts FDI. Proper human resource management involves quality human capital development, the workforce in the economy. [28] Studied FDI attractiveness for SD based on evidence from Chinese provinces and also reported on FDI attractiveness bottlenecks in each province. He concluded; initially, FDI attractiveness was more of a technological progress, calling for an input of quality human resource. [42] Studied the role of inventory of government policy responses related to FDI in the automobile sector in India. The results indicated that FDI positively influenced automobile sector through quantitative and qualitative employment generation. Qualitative employment called for skilled workforce which involved special skill, training and knowledge acquirable through educational or special training course program contributing to better human capital. Thus, FDI in India’s automobile sector created job opportunities, enhanced better skill, and promoted sustainable job opportunity. FDI may help achieve SD in developing countries by encouraging human capital improvement.

To attract FDI, most developing countries adopt favorable policies; long-run, this fosters growth inequality and increased environmental degradation [43]. This prompted studies on role played by more stringent policies on FDI projects in developing countries. [6] Studied the evolving situation in India concerning the slow inclusion of Sustainable Investment (SI) principles as a responsibility at multinational corporation level to achieve sustainable growth. From his conclusions, he suggested a way forward by promoting the concept of SI in initial stages of screening of FDI in terms of Economic, Social and Governance (ESG) standards in order to attain long-term, inclusive and sustainable growth patterns. In other words, FDI could contribute to SD achievement in India if SI principles are applied to FDI projects.

As shown in this section, FDI is a vehicle used to achieve SD in both developed and developing countries.

### **VI. Implication Of The Linkages**

Coming decades, SD achievement will involve actualization of the 17 goals of SDG covering economic, social and environment aspects. Economically, realization of sustainable economic growth with the objective to achieve a full and productive employment to all is of great importance. This will indirectly improve the country's social aspects like the human capital, gender equality and life expectancy due to an increased income per capita relative to level of employment. In our review, to achieve economic growth, FDI is presented as a key contributor through a long-term Real GDP growth and use of environment-friendly technologies in developed and developing countries, respectively. Socially, promotions of sustainable job opportunities reduce poverty and promote better social life thus help achieve SD. As shown in this review, SD can be achieved through the means of FDI. Environmentally, several economic actions led to its degradation through the years. However, using FDI, environment-friendly technologies have been used in FDI projects thereby contributing to clean environment promotion and SD achievement. In summary, FDI in general has a positive impact on SD in both developed as in developing countries as presented in "TABLE 2". However, some developing countries still be recipient of FDI's environmental drawbacks, the review strongly believe that following recommendations may help the latter to transform their FDI into an efficient instrument of SD achievement and for the other to keep it as successful path for SD achievement .

- 1) We strongly recommend countries to create and implement domestic policies that work in harmony with sustainable investment principles to attract FDI. This will ensure achievement of all SDGs thus SD achievement.
- 2) For accountability purposes, FDI host countries should encourage corporate social responsibilities, sustainable reporting and disclosures for monitoring and optimized performance.
- 3) Both FDI host and home countries should continuously establish sustainable indices to regulate and keep up to-date with environmentally acceptable standards.
- 4) Improve the quality of human capital through relevant training and education to increase entrepreneurship and creativity in vital sectors such as green energy.
- 5) Empower local community and civil rights society to fend off irresponsible corporate behavior by FDI related-foreign firms.

**Table 2**

1: Sustainable Development, 2: Foreign Direct Investment, 3: World Bank 2009's classified high income countries

Country	SD <sup>1</sup> pillars	FDI <sup>2</sup> Indicator	Result	References
Argentina	Economic	Foreign Trade Balance of payment	Negatively impact trade balance, balance of payment	[27]
	Environment	Pollution Prevention	Involve use of better eco-technologies, thus better environmental management practices	[27]
China	Social	Human Capital	Better and quality human resource attracts FDI	[28]
India	Environmental, Social	Environmental Sustainability Index, ESG index and CRS activities	ESG standard through SI principle implementation in FDI inflow leads to long term, inclusive and sustainable growth.	[6]
EU Region	Environmental	FDI inflows percentage in environment sector, energy, gas, water and pollution-intensive activities	Strict regulations in EU make FDI relevant to sectors which impact environment.	[29]
Developed countries <sup>3</sup>	Economy, Social	GDP, Export, life expectancy at birth, primary school education,	FDI contributes to improvement of SD indicators in developed countries.	[36]
EU	Social, Environment and economy	Gross national income, FDI stock, healthy life years and life expectancy at birth, poverty, greenhouse gas emissions, renewable energy, FDI flows, GDP/capita, consumption	FDI is mostly directed to green investments generating an increase in clean energy production and clean tech innovation	[37],
Austria, Canada, Denmark, Finland, France, Israel, Italy, Netherlands, New Zealand, Norway, Spain, Sweden, the United Kingdom, and the United States.	Social	Life expectancy at birth, FDI inflows (% GDP)	FDI doesn't contribute to health improvement in developed countries.	[30]
China	Environment	Domestically invested physical capital stock, FDI capital stock, human capital stock, labor input, quantity of natural resources, total factor productivity (TFP)	FDI influenced by kind of input used may have a negative or positive effect on green environment development.	[31]
EU	Environment	Structure and flows of FDI	Environmental laws in EU region favor FDI flows towards sustainable economic practices.	[22]
African countries Except South Sudan and Somalia	Social	FDI, HDI, population, aid, FDI per capita, aid per capita, aid per GDP, political rights, civil liberties, domestic credit to private sector, Fixed and mobile subscribers phone, inflation, government consumption expenditure, debt outstanding and	FDI positively affect human development.	[32]

		disbursed, trade openness.	
Ghana	Social	Real GDP per capita, FDI, Labour, Human capital, Domestic investment, Infrastructure development, trade openness, Inflation	Human capital is an important driver for FDI attractiveness. [19]
Nigeria	Environment	CO2, Gross national income per capita, value-added by economic activity in Agriculture, hunting, forestry and fishing.	FDI is negatively related to CO2 emission. [33]
	Economic	FDI, Inflation rate, Balance of payment, Exchange rate.	FDI has a positive effect on SD achievement. [34]
Singapore	Economy	GDP, Total labour force; GFCF, Human capital, Trade Openness, Financial Development.	FDI positively impacted economic growth. [35]
	Social	GINI coefficient, GDP, GFCF, Trade Openness, Financial Development.	FDI negatively impacted income disparity. [35]
	Environmental	CO2, GDP per capita, financial development, energy consumption per capita, trade openness per capita.	FDI positively impacted green environment enhancement. [35]

## VII. Conclusion

SD integrates three dimensions of economy, social and environment; can be qualified as a new concept for development leading to a better future. By definition, despite several views; SD has its main meaning as “a development that meets needs of the present without compromising the ability of future generations to meet their own needs”. FDI is a vehicle used by several countries to achieve economic growth as well as SD, an sentiment backed by organizations such as International Institutions for Sustainable Development (IISD) and leaders like Mr Adesina (AFDB’s president). FDI contribution to SD achievement in developed and developing countries have been related to the pillars of economy, social and environment through different initiatives discussed. Since 2000, after implementation of MGDs, most developing countries especially African countries have been the center of attention for SD achievement. Unfortunately, lack of empirical and literature studies concerning FDI contribution to SD through human development enhancement in African countries have been noticed. Therefore, further investigation to establish linkages of FDI contribution to SD achievement on the African continent using indicators such as HDI will generate and provide insightful knowledge relevant to African policy makers among others.

In this review paper, a positive direct and indirect implication of FDI on SD achievement in both developed and developing countries was found and considered a strong vehicle in SD achievement. As discussed, this contribution could be on the economic, social, and environmental aspects in the home or host country. Therefore, as FDI helps achieve SD, the SDGs are realized. However, FDI may as well negatively impact SD achievement. More, as further study, this review encourage for more empirical study regarding the FDI implication to Human development on the African continent.

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