

A Critical Analysis of The Economic Dimensions of SDGs Based on Islamic Economics Perspective

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Abstract: It is a common belief that the concept of sustainable development is introduced to the rest of the world by western thinkers. The western world discovered sustainable development through trials and errors emanating from their failures. This concept has been promoted on three dimensions: environmental, social, and economic. Sustainable Development Goals (SDGs), which have mostly focused on material achievements neglecting ethical progress, are left to be implemented by each country individually. It is believed that the Islamic world has just of late adapted this concept. Yet little is known that the origin and the concept of sustainable development can be traced back in history. This concept with its three dimensions is embedded and is prevalent in various practices in the world of Islam. The three dimensions of sustainable development have their theoretical foundations in Islamic principles, especially within the principles and objectives of Islamic economics with its economic aspect. There has hardly been any work that has analyzed the economic dimensions of SDGs from the Islamic economics perspective. This paper, therefore, aims at developing a new inclusive model for SDGs based on the Islamic economics perspective. The paper will argue that SDGs based on Islamic economics can overcome the ills in the practices of the conventional economic systems. The paper will offer genuine economic and financial recommendations based on a human-centric and ethical frame. The study has suggested a potential area for future research that would harmonize Islamic economics with sustainable development in the context of the present SDGs.

Keywords: Harmonization; Islamic Economics; Origins; SDGs; Sustainable Development

1. Introduction

Although Sustainable Development (SD) is a concept introduced by the western world in the late 1980s, that is not a new concept to Islam, which in principle and theory, has included the SD principles in its primary sources for ages (Aburounia & Sexton, 2006, p. 757). Sustainable development's existence and performance are very much related to the structures and functions of social, economic, and environmental institutions. With the ending of the Ottoman Empire, almost all of the superseding states changed their institutions in parallel to the idea of westernization, even though the majority of their

population were still Muslims. Therefore, the teachings of Islam lost ground and were relegated from institutional levels to individual levels. Thus, institutions in the Islamic world were transformed into a position where they relied on all ideas and innovations from their corresponding western institutions, which have long remained in pioneering positions.

That is why the re-invention of SD was only possible by the western world's being interested in this idea at the end of the 20th century. Since many ideas from the western world are imported by the Islamic world, the adoption of SD by the governments of Muslim societies has happened lately (Aburounia & Sexton, 2006, p. 763).

The institutions of Islamic Economics (IE) have had a significant role in the adoption of this concept by its inclusive approach to all human-human and human-environment relationships. Therefore, the context of IE shall take the opportunity to re-evaluate and support the SD. In other words, the contribution of IE along with its financial institutions will have much to say and act regarding the Sustainable Development Goals (SDGs), which are widely accepted by the international community today.

The problem of today's concept of SD is that it is a concept discovered through trials and errors emanating from Western practices and failures. This paper aims to introduce IE and its financial solutions to the global institutions in the context of SDGs, which are accepted as measures to address the common problems and seek common solutions. The common problems of our world cannot be solved without enabling the contributions of all humans no matter what their location, religion, language, race, age, or gender. All the opportunities shall be seriously considered and worked through their benefits. Therefore, the methods of IE, that are assertive about SD shall be considered and scrutinized by all economic systems. This will encourage the people working in this field to promote the active area of IE worldwide. In this manner, the outcomes of opportunities introduced by IE can testify to its fast and permanent curing abilities in all communities. If we deal with the economic dimension of SDGs by developing a new inclusive model based on IE, we can examine the extent of the ills in the practices of the conventional economics and finance on SDGs, and thus offer genuine economic and financial solutions based on IE, which in practice is human-centric and has a clear ethical frame for all humans.

Moreover, this study is expected to help Islamic state governments, Muslim communities, and the Muslim business world and in particular, the Islamic financial sector to discover their potential to contribute to the achievement of SDGs. This study aspires to answer the following research objectives:

- Examining IE and its financial solutions for the institutions in the context of SDGs,

- Attracting the attention of Islamic state governments, Muslim communities, and Muslim business world and the Islamic financial sector harness their potential to contribute to the achievement of SDGs,
- Re-defining SD and re-categorizing SDGs based on IE perspective for helping the re-transformation of institutions,
- Determining the economic dimensions of SDGs that can be analyzed from the perspective of IE,
- Showing the way to assess SDGs in relation to IE.

Following the introduction, the literature review part identifies the research gap and discusses the importance of contribution in this area. We will first address the origins of SD traced back in the western world and exposes the reasons why the Islamic world seems to adapt to this concept later. After introducing the basics and the objectives of SD and IE concepts, we will bring the readers to an idea of harmonization between the two concepts by defining and understanding SD from IE perspective. As a key finding of this paper, we are suggesting a new categorization for the SDGs that extracts the mostly economic-related goals for enabling institutions to focus on the economic aspect of SD. As a result, the paper offers a three-step evaluation process, based on the three supportive concepts that harmonize SD and IE, for opening a way forward to extract ideas and opportunities of IE around SDGs. A flight of ideas is exemplified on 'SDG 9 – Industry, innovation, and infrastructure', which is discussed and evaluated in detail, as SDG 9 has a context related to Islamic finance. The other SDGs with economic dimensions can be discussed in the future by the same three-step evaluation process. Lastly, the conclusion and the way forward recommendations are presented in the end.

This study has adopted a qualitative research method in the form of a bibliographic search of the literature and followed the meta-analysis of the trend of issues on SD, SDGs, Islam and SD, Islam and SDGs, IE and SDGs. A critical analysis approach is used to formulate recommendations in the end.

2. Literature Review

Approaches to SD and IE concepts and necessary discussions on their relevance were covered during the literature review stage of this study. Also, the websites of the UN were visited to derive direct information regarding SDGs. Mainly the resources are grouped under three genres.

1. References about the concept of SD
2. References about SDGs
3. References about Islam and SD

The first group of sources was written mostly by western writers, while the third group of sources was written mostly by Muslim writers. The second group mostly consist of official NGO publishings, reports, and analysis.

For instance Securities Commission Malaysia (2018) emphasizes that “there is a strong nexus growing between” IE and SD and it is time to discuss and concrete on IE in driving SD, particularly in infrastructure developments (Securities Commission Malaysia, 2018, p. 60).

Mukhtar, Zainol, & Jusoh (2018) claims that UN’s SDGs ask member states to act as prescribed in the Holy Qur’an and the Sunnah of Prophet Muhammad (ﷺ) with a constitution based 1400 years ago. Eradication of poverty and hunger, social well-being, reduced inequalities are all duties to be achieved, required by the verses of the Qur’an and Sunnah and that’s why today’s state economies must follow the SDGs in light with IE to achieve “peace, harmony, and economic growth” (2018, p. 81).

3. The Concept of SD

Sustainable development is a regulating and human-based concept that is fundamentally about the future and can be defined, interpreted, and put to practice in many different ways and (Wangel, 2019, pp. 4–6).

Even though there have been hundreds of definitions called for SD, it can be argued that the first and the most original definition was the one declared in the Report of the World Commission on Environment and Development in 1987 as “Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987, p. 41).

This concept can be considered as collective ethics, which is expanded in time and space on biologic life, social life, and economic life (Wangel, 2019, p. 9). Redefining SD can be useful for re-understanding the concept of SD with a clearer identification introduced by Islam. Here we offer our definition from an Islamic economics perspective;

Sustainable development is the development that sustains the necessities of the present and the future, by seeking and conducting the activities permissible by Islamic law (Shari’ah).

3.1. The Trend of the Western Origins of SD and SDGs

In order to make any constructive critical analysis on SD, we need to first clearly understand its western origins. The chronological development summary will clarify the journey of minds coming to the concept of SD. By this method, we can detect the gaps in the concept, especially when it comes to the method of achieving its goals. The reasons why SD has emerged in the western world can be traced back to the 1870s.

The 1870s - 1900s

In the late 19th century as a result of new imperialism, the re-emergence of colonial rivalries, and the rise of industrialized nations, those industrialized western nations penetrated Asia and Africa. This was the era of “exploitation of natural resources in a colonial context” by the Western world (Webster & Nowell, 2018).

The 1910s - 1930s

In the early 20th century following the social and economic destructions of World War I and post-war redistribution of colonies, the rise in need of fossil fuels made western economies develop policies in securing energy flow for their continuous heavy industries (Webster & Nowell, 2018).

The 1940s

Similarly but broader, World War II devastated not only the social and economic life but also the environment and along with the decolonization period, a consensus emerged in the western world on the “urgent need for international efforts to aid the ‘development’ of ‘less advanced countries’” (Purvis et al., 2019, p. 683).

The 1950s

This aid increased material well-being when the flow of goods and services are promoted and improved in the mid-20th century. Material improvement, called ‘economic growth’, became the major goal of the western world. On the other hand, it was introduced by the western nations to the less advanced countries as a success called ‘economic development’. For those less advanced countries to achieve that development, they need to transform their institutions guided by western nations. That was the era when the western nations intensely penetrated the institutions of less advanced countries and transformed them from their originality (Purvis et al., 2019, p. 683).

The 1960s

When we arrive in the 1960s western countries pointed out international trade as the key implementation of ‘economic development’, and western countries started providing large-scale legal, technical and financial assistance to the ‘less advanced countries’. Unfortunately, that was the time when it was witnessed that economic well-being was traded off with environmental well-being and social well-being. As a result of this, the westerns started questioning the Limits to Growth. Therefore, a period of mass critics on economic growth that harms social and environmental aspects was raised, and many environmental and social protests and movements started in the West (Purvis et al., 2019, p. 683).

The 1970s

The UN could not be a mere spectator of those movements and for the first time a global summit, called ‘Conference on the Human-Environment’, that

considers the human impacts on the environment, was organized in 1972 (Purvis et al., 2019, p. 683).

The 1980s

After ten years, the UN started to establish basic institutions and published the basic concept of SD. In 1983 'World Commission on Environment and Development (WCED)' is founded. WCED announced a new era of economic growth that shall become effective on every nation and ensure socially and environmentally sustainable progress at the same time. 'Our Common Future' also known as 'Brundtland Report' is published in 1987 and 'Center for Our Common Future' is established under the UN in 1988 (Purvis et al., 2019, p. 683).

The 1990s

SD's journey from theory to practice started after the UN's Earth Summit in Rio in 1992. The introduced 27 principles were intending to guide and improve the acceptance of SD through the publication of the 'Rio Declaration' and 'Agenda 21', which were expressing a practice plan of SD principles. Commission on Sustainable Development (CSD) was established for providing guidance and tracking the progress in the implementation of SD (Purvis et al., 2019, p. 684). On the other hand, severe and frequent economic and financial instability started to threaten the progress of SD at the beginning of the new millennia.

The 2000s

8 Millennium Development Goals (MDGs), to be achieved globally by 2015, were launched in 2002 (Purvis et al., 2019, p. 686). However, MDGs were not sound because of those crises. Especially, as inside-the-box reforms were applied repeatedly, the world economy dragged into a new Great Depression.

The 2010s

2008 Financial Crisis and 2010 European Sovereign Debt Crisis, considered as the modern Great Depression, refers to the period of a severe economic downturn that occurred globally between 2008 and 2013 with low growth in economies and raised unemployment and homelessness (Clifford & Hill, 2015). That's why, without even waiting for 2015, MDGs were decided to be expanded and re-developed as 17 SDGs after the UN World Summit in 2012, to be achieved globally by 2030 (Purvis et al., 2019, p. 687). The timing of MDGs and SDGs are coinciding with the post-period of crisis, and again the economic motivation prevails over other and environmental concerns.

The 2020s

It is expected to have some fundamental global changes in social, economic, and natural life after COVID-19 pandemics and its economic consequences. It seems the importance of social healthcare and effects of digitalism as well as the rising trade wars between east and west will find their place as amendments in the scope, definitions, and measures of SDGs, such as SDG 3 - Good Health and

Well Being, SDG 4 – Quality Education or SDG 16 – Peace, Justice, and Strong Institutions.

3.2. Institutional Transformation

SD requires an institutional transformation that shall disable the exploitation of resources, direct the investments, and orient the technologies towards the SDGs, enhance both external and internal limitations of current and future human life.

When the western origins are carefully thought it is more apparent that SD is not an innovation but an outcome of the cause-effect relations in western history. We can say the western world took an interest in re-inventing SD at the end of the 20th century and SDGs are still being driven by global events rather than being the driving force for the globe. This brings us to the point that something is missing in the acceptance and implementation of SD. SDGs from the Western perspective often focus on material achievements neglecting moral progress.

The Western concept of SD was the one that was later imported and adopted by Muslim governments. On the other hand, the basics of SD are embedded in the teachings of Islam for ages. The key reason is the institutional change in Muslim countries that we addressed above in western history. By the ending of the Ottoman Empire, succeeding states transformed their institutions faster where they were mostly relying only on western ideas and innovations. Therefore they relegated SD in Islam from original institutional levels to individual levels, while the transformed institutions were learning the SD of the West as something new with western implementation skills.

As one of the advancing areas of Islam on institutions, IE shall take the opportunity to re-evaluate and promote SD from its original perspective, which covers both human-human social relationships and human-nature environmental relationships, especially in the last ten years of performance on SDGs.

3.3. The Pillars of SD

The term ‘SD’ originated due to international environmental concerns, but it also applies to economic and social dimensions equally (Wangel, 2019). Therefore SD is based on a three-pillar concept to understand SD from a multi-level perspective.

1. *Environmental Aspect:* Refers to the environmental well-being of the earth. This aspect aims to integrate development with ecological and biological harmony. A development is considered environmentally sustainable with its degree of preserving a viable natural environment. The interaction between environmental and social aspects must create a

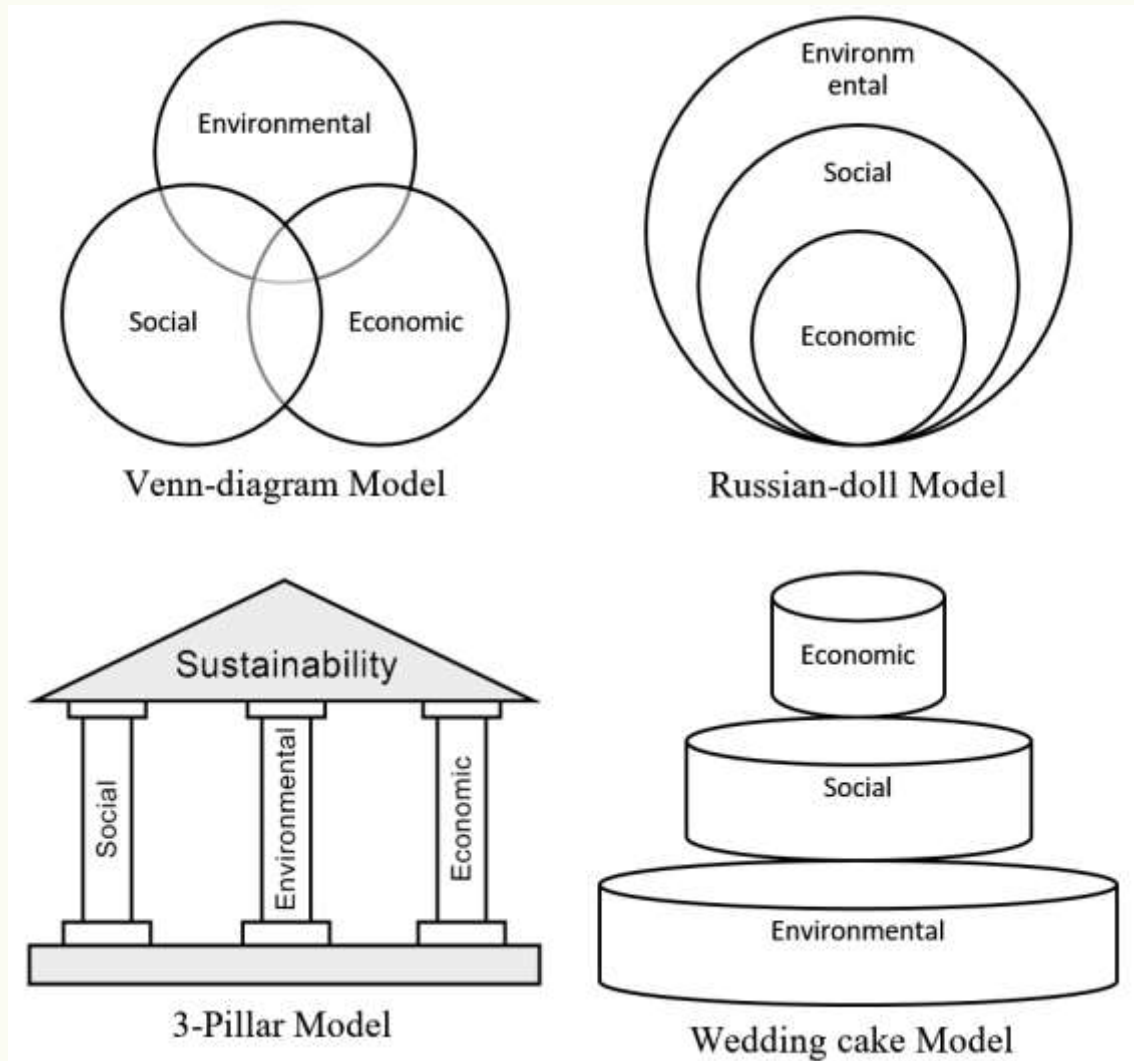
sustainable natural and built environment. This aspect is assumed as the main motivation behind the idea of SD. However, that's the most neglected aspect while taking development decisions.

2. ***Social Aspect:*** Refers to the social well-being of the public. This aspect aims to integrate development with social and cultural harmony. A development is considered socially sustainable with its degree of nurturing communities. The interaction between social and economic aspects must ensure an equitable social environment for all human beings.
3. ***Economic Aspect:*** Refers to the economic well-being of individuals, companies, and states. This aspect aims to integrate development with wealth and growth. A development is considered economically sustainable with its degree of self-sufficiency and reliability. The interaction between social and economic aspects must ensure an equitable social environment for all human beings. This aspect is assumed as the major aspect that causes conflict between the other aspects, usually disturbing the balance of SD (Purvis et al., 2019, p. 692). Therefore, development agencies must focus and analyze more on the unbalancing economic interests of nations to block the means of unsustainable development.

This three-pillared formulation enables us to understand the interactions, trade-offs, and mutual reinforcements between these aspects and helps us to make our development decisions sustainable (Purvis et al., 2019, p. 692). A system or activity can be considered sustainable by balancing these three pillars.

The above-mentioned dimensions are mostly illustrated with a few simple models to reflect the importance of the interconnected pillars of SD. The most common models are shown below in

Figure 1. Typical Models of Three Dimensions of SD.



3.4. The Goals of SD

There are several ways for operationalizing SD objectives, but the most well-known actions are announced and suggested by the UN. The MDGs were global development agendas determined in 2000 for 2015, having 8 goals. SDGs are updated global development agendas determined in 2015 for 2030, take over the unfinished business of MDG and go even further with 17 goals.

The SDGs serve as a worldwide memorandum that guides the finance and insurance sectors, and the investors in their core businesses towards achieving economic, social, and environmental sustainability (The United Nations Global Compact & KPMG International, 2015).

The official titles and short descriptions of 17 SDGs are listed below;

1. **No Poverty:** End poverty in all its forms, everywhere

2. ***Zero Hunger:*** End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
3. ***Good Health and Well Being:*** Ensure healthy lives and promote well-being for all
4. ***Quality Education:*** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all at all ages
5. ***Gender Equality:*** Achieve gender equality and empower all women and girls
6. ***Clean Water and Sanitation:*** Ensure available and sustainable management of water and sanitation for all
7. ***Affordable and Clean Energy:*** Ensure access to affordable, reliable, sustainable, and modern energy for all
8. ***Good Jobs and Economic Growth:*** Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all
9. ***Industry, Innovation, and Infrastructure:*** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
10. ***Reduced Inequalities:*** Reduce inequality within and among countries
11. ***Sustainable Cities and Communities:*** Make cities and human settlements inclusive, safe, resilient, and sustainable
12. ***Responsible Consumption and Production:*** Ensure sustainable consumption and production patterns
13. ***Climate Action:*** Take urgent action to combat climate change and its impacts
14. ***Life Below Water:*** Conserve and sustainably use the oceans, seas, and marine resources for SD
15. ***Life on Land:*** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
16. ***Peace, Justice and Strong Institutions:*** Promote peaceful and inclusive societies for SD, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels
17. ***Partnerships for the Goals:*** A successful SD agenda requires partnerships between governments, the private sector, and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the center, are needed at the global, regional, national, and local levels
(The United Nations Global Compact & KPMG International, 2015).

4. The Concept of IE

IE is a social science that rationally studies human behavior in utilizing resources from the environment, for production, consumption, and distribution of wealth among all people, with the guidance of not only experiments and observations but also the revelation. In this regard, IE looks at the human being as he is, regardless of his attributes, as a whole integrated unit (Kahf, 2014, pp. 6–8).

In Islamic tradition, there are three levels of conditions for seeking to achieve what is good (*maslahah*) and avoiding what is bad (*mafsadah*). These conditions are graded according to their benefiting on the well-being of human beings;

1. **Necessities** (*dharûrriyyât*); that are essential or indispensable
2. **Conveniences** (*hâjiyyât*); that are complementary to the necessities
3. **Beautifications** (*tahsîniyyât*); that are comforts and embellishments

(Kahf, 2014, p. 13).

These benefits create the basis of legal decisions, rulings, and judgments independently, and they don't require an additional reference for judgment. The necessities must be secured by the state, legal system, society, and members of society (Orman, 2018). On the other hand conveniences and beautifications require additional references for judgment, and they are conditions for individual preferences (Kahf, 2014, p. 14). This key approach of Islamic tradition opens the main gate for us to approach and evaluate SD goals in light of IE.

4.1. The Pillars of IE

According to Kahf (2014), IE has five pillars that establish its foundations and affect all its regulations;

1. **Oneness of Allah:** Allah (*swt*) is the only supreme, then human beings are equal in the sight of Allah (*swt*). No allowance for any privileges is assigned to anybody over others.
2. **Accountability on the Day of Judgment:** Everything we do will have an effect on us or others in the short term or the long term, even after death. There will be Resurrection and Judgment with reward and/or punishment for every economic action by humans.
3. **The Message:** Human being is guided for using and distributing the resources, by the divine message of Allah (*swt*) in Qur'an and Sunnah, which is to be followed to achieve salvation.

4. **Worship:** All actions of life, including economic activities (such as producing, providing service, trading, consuming, etc.) are also forms of worship.
5. **Human beings are vicegerents of Allah on earth:** The Universe is created for mankind, and we are given the advantage of benefitting from all resources by working to obtain them. This assignment is to all humanity, not to any race, color, religion, or class given by Allah (*swt*).

(Kahf, 2014, p. 9)

4.2. The Objectives of IE

The main objectives of IE are not exceptional than the objectives of normal economics with a significant added value of respect to human dignity. Therefore we can specify the three objectives for IE as follows;

1. Equitable distribution of wealth and income
2. Responsible and efficient production and consumption of wealth and income
3. Establishing economic justice and being respectful to human dignity

(Kahf, 2014, p. 57).

The third objective is arising from the major teaching of Islam that is revealed as Allah (*swt*) created humans as the highest of all creatures in the universe, and all other creations are trusts to humans to achieve their main goal of knowing, loving and obeying Allah. Therefore humans shall make the best use of all the things controlled by them, with a sense of accountability and justice.

5. SD from IE Perspective

5.1. Harmonization Under Three Main Concepts

The economic activities of humans shall care for and foster the environment and protect human rights from the Islamic law (*Shari'ah*) perspective. Therefore, today's economic needs shall ensure that these economic activities will not compromise the necessities (*dharuriyyat*) of life in social, environmental, and economic fields in the future (Aburounia & Sexton, 2006).

This view overlaps the concept of SD perfectly. SD was described in two basic concepts in the famous Brundtland Report,: 'the concept of needs' and 'the concept of limitations' (Brundtland, 1987, p. 41). These two concepts are the key terms that combine the Islamic worldview with SD. When the concept of objectives of IE is structured on these two overlapping concepts, the opportunities that are offered for economic development can be analytically evaluated and judged.

The Concept of Needs

SD introduces the concept of needs as the essentials of the people living in poverty and those essentials must be supplied as a priority (Brundtland, 1987, p. 41).

In parallel to this, the necessities (*dharuriyyat*) mentioned in the first level of human benefit (*maslahah*), are the point of origin to every economic behavior, activity, and transaction of human beings. Therefore Islamic law addresses these basic needs as a must to be supplied for all human beings.

The Concept of Limitations

SD introduces the idea of limitations as the environment's capacity of supplying essentials of today and tomorrow. SD implies limitations on natural resources imposed by the technological and social structure that considers the ability of the earth to negate the effects of human activities. That's why technological and social improvement shall also be considered under the economic growth (Brundtland, 1987, p. 16).

IE obliges human beings to seek the pleasure of Allah (*swt*) in their every economic behavior, activity, and transaction. According to the Qur'an, the path to the pleasure of God is through adding value to human life and serving other human beings. This altruistic approach embedded in the concept of IE is the internal limitation that is parallel to the external physical limitation addressed by SD.

The Concept of Objectives

SD operationalize its objectives by SDGs, which serve as a global compass that guides economy, finance, and business towards achieving economic, social, and environmental sustainability (The United Nations Global Compact & KPMG International, 2015, p. 11). No matter how many goals are determined, their common objective built a sustainable human life on the three pillars: environmental, social, and economic at the same time. The fundamental rights of human beings can only be provided in a social, economic, and natural environment that permits a quality life with "dignity and well-being" (Brundtland, 1987, p. 271).

Since Islam is a worldview and it covers all the human-related actions and ideas in its scope, IE offers more than the other economic systems offer. As mentioned in Section 4, some of the objectives of IE are common among other economic systems while one of them is unique to IE system, which is *establishing economic justice and being respectful to human dignity*. The other two objectives *efficiency* and *equitability* are almost common to all economic systems with different emphasis and priorities (Kahf, 2014). The general common objectives and the added unique objective by IE are shown in Table 1 below. IE requires activities that can fulfill all three objectives at the same time.

Table 1. Objectives of Economic Systems.

Nr.	Objectives of Economic Systems	Objectives of Capitalist Economic Systems	Objectives of Socialist Economic Systems	Objectives of the Islamic Economic System
1.	Efficiency <i>(General Common Objective)</i>	Economic contributors get their share by adjusting income share to unit productivity	The centralized decision makes the economy produce what is needed	Increasing efficiency of production of wealth and income
2.	Equitability <i>(General Common Objective)</i>	Economic justice; market assigns to you what your contribution is worth	Centralized decision making in the economy for achieving justice with growth	Improvement of distribution of wealth and income
3.	Respect for Human <i>(Additional Unique Objective presented by IE)</i>	none	none	Respecting the dignity of human beings
		<i>putting more emphasis on personal freedom</i>	<i>putting more emphasis on collectivity</i>	<i>balanced for the human being</i>

5.2. Categorization of SDGs

UN focused on the integration, indivisibility, and balance of these three dimensions in the last World Summit in 2012 and produced SDGs based on these pillars. On the other hand, the UN did not introduce any framework for these three dimensions for categorizing the 17 goals (Purvis et al., 2019, p. 687).

A categorization of SDGs was illustrated in 2016, based on the wedding cake model, by two academics from Stockholm Resilience Centre at Stockholm University, showing the economic, social, and ecological aspects of the SDGs (see Figure 2).

Figure 2. The wedding cake model for SDGs, developed by Stockholm Resilience Centre.

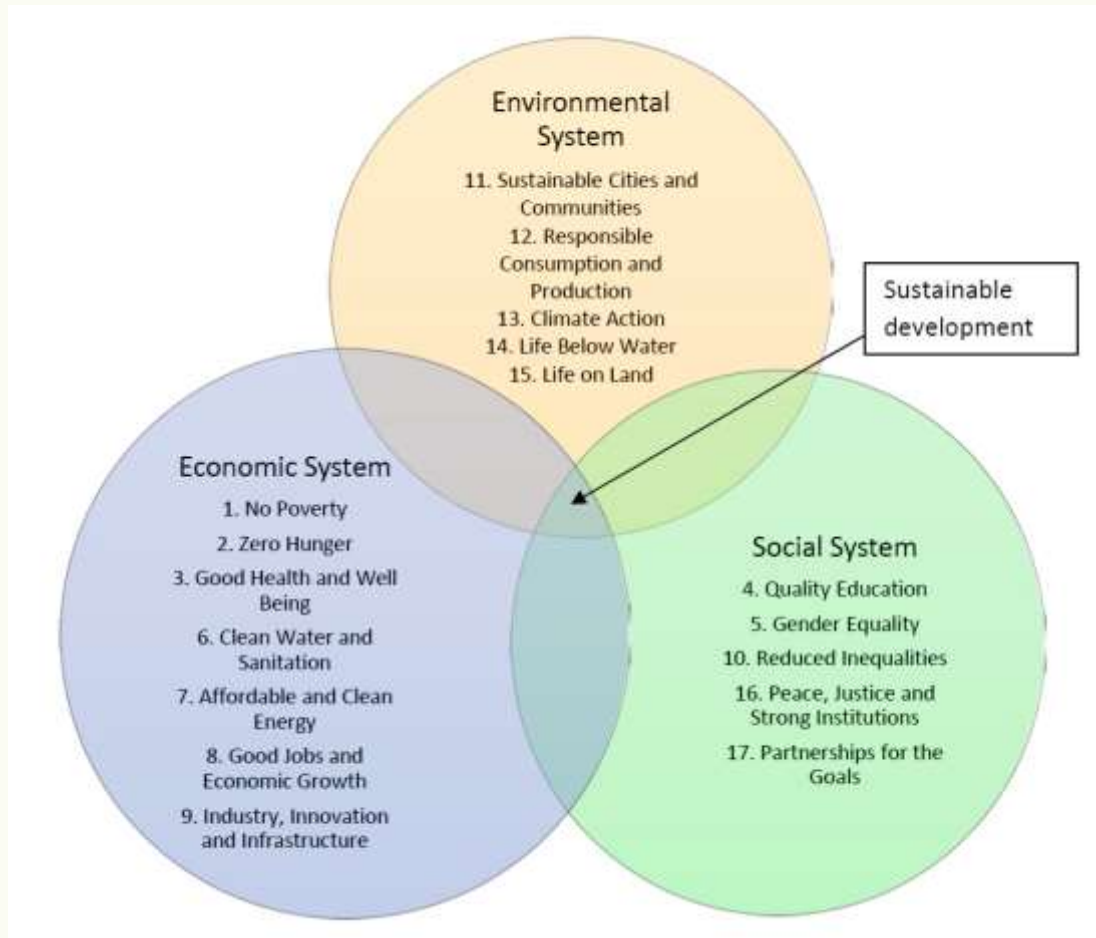


Source: (Rockström & Sukhdev, 2016).

As seen in the above figure, SDG 8, SDG 9, SDG 10, SDG 12 are considered under the 'economy' category; SDG 1, SDG 2, SDG 3, SDG 4, SDG 5, SDG 7, SDG 11, and SDG 16 are considered under 'society' category; while SDG 6, SDG 13, SDG 14 and SDG 15 are considered under 'biosphere' category. SDG 17 is shown as the top central element required for binding all aspects.

Another illustration was suggested in 2017, based on the systems approach on SDGs on the Venn-diagram model, by two academics from the University of Wyoming, USA, showing how each of the 17 SDGs can be characterized with their primary attributions either to the environmental, economic or social (see).

Figure 3. The systems approach to sustainability is applied to SDGs.



Source: (Barbier & Burgess, 2017, p. 8).

As seen in the above figure, SDG 1, SDG 2, SDG 3, SDG 6, SDG 7, SDG 8, and SDG 9 are considered under the 'economic system' category; SDG 4, SDG 5, SDG 10, SDG 16, and SDG 17 are considered under 'social system' category; while SDG 11, SDG 12, SDG 13, SDG 14 and SDG 15 are considered under 'environmental system' category.

Another recent research in 2019 was conducted among scientists, teachers, academics, and administrators to understand how SDGs can be categorized as a framework by overlapping them according to their relevance with the three main pillars using the Venn-diagram model, by two academics from Aristotle University of Thessaloniki, Greece. The result of the research categorizes SDG 3, SDG 9, and SDG 12 under economic element; SDG 5, SDG 8, SDG 14, SDG 15, and SDG 16 under social element; while SDG 1, SDG 4, SDG 6, SDG 7, SDG 10 and SDG 11 under the environmental element. SDG 2 is classified as both environmental and social. SDG 13 and SDG 17 are classified as both environmental and economic (Dalampira & Nastis, 2020, pp. 1-6).

5.3. Re-categorization of SDGs from IE Perspective

The selected SDGs concerning the economic dimension of SD are explained in Table 2 to determine the economic SDGs to be evaluated with IE principles. This is important because this study is aiming to focus on the SDGs mostly related to the scope of IE.

As a method of combining these ideas, the following steps are taken;

1. Any SDGs that are considered under one group element in two or more previous researches are also considered under that element.
2. Any SDGs that are considered under different group elements in each of the previous researches are discussed, and their group elements are concluded according to the principles, pillars, and objectives of IE.

An example of the first function above is SDG 3, which is categorized as 'economic' by both 'Barbier & Burgess, 2017' and 'Dalampira & Nastis, 2019', so as a result SDG 3 is also categorized as economical in this study. Another example of this function is SDG 5, which is categorized as 'social' by all three previous research, so as a result, SDG 5 is also categorized as 'social' in this study.

SDGs which remain outside the first function and fall under the second function is SDG 1, SDG 7, SDG 10, and SDG 17. The categorization of these four SDGs is discussed below, through the second function.

SDG 1 (No Poverty) and SDG 10 (Reduce Inequalities)

As mentioned before in this paper, two of the main objectives of IE are an *equitable distribution of wealth and income and establishing economic justice, and being respectful to human dignity*. These objectives are fully compliant with the objective of SDG 1 'ending all forms of poverty everywhere' and the objective of SDG 10 'reducing inequalities within and among countries'. It can be firmly concluded that SDG 1 is within the microeconomic scope of IE and SDG 10 is the macroeconomic scope of IE. Therefore, both of them shall be categorized as 'economic'.

SDG 7 (Affordable and Clean Energy)

The main idea of SDG 7 is ensuring people's access to dependable, budget-friendly, and eco-friendly energy sources and promoting renewable energy. The issue is no doubtfully linked to economic issues. However, since all energy resources are supplied from the environment and demanded by individuals and society, the definition of 'affordable and clean energy' refers indeed to the environmental and social aspects of SD. Therefore, from the perspective of IE, SDG 7 shall remain within the scope of 'environmental' issues.

SDG 17 (Partnerships for the Goals)

The main idea of SDG 17 is building partnerships between governments, the private sector, and civil society upon principles and values, a shared vision, and

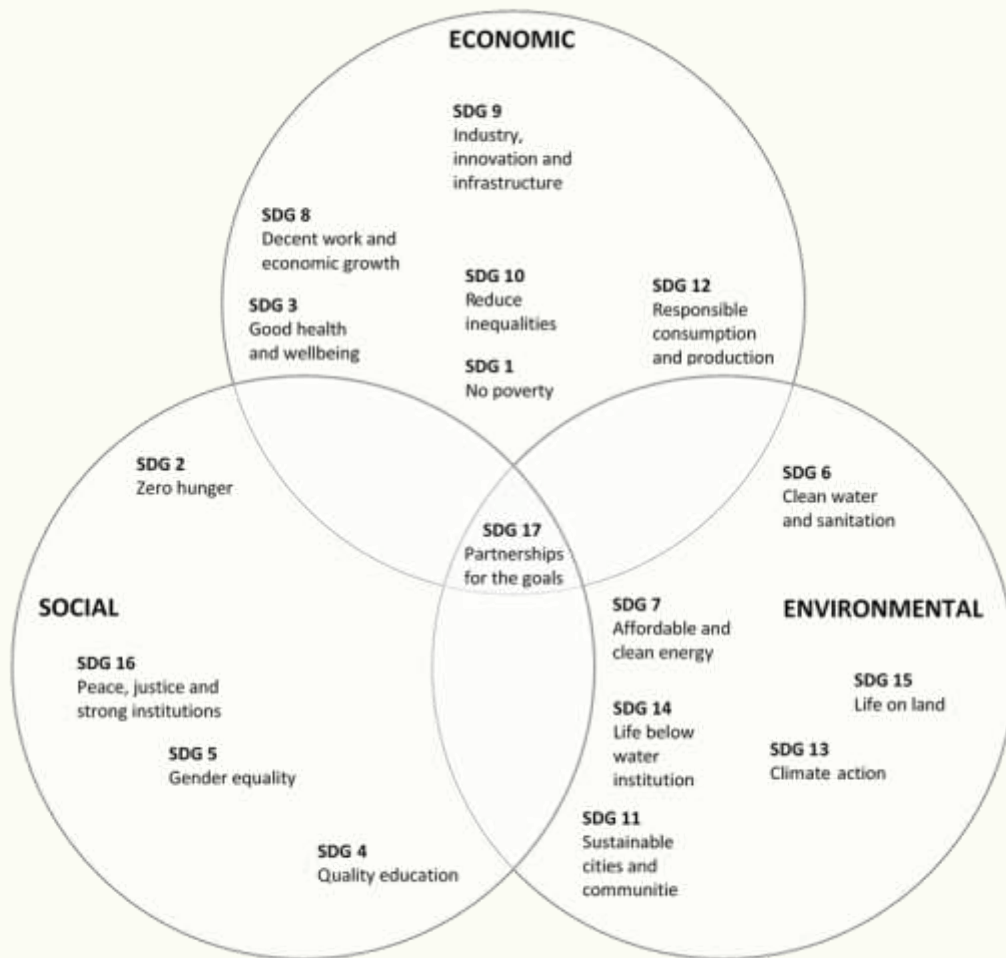
shared goals at the global, regional, national, and local levels. This issue of gathering the stakeholders united on certain purposes cannot be limited to 'economic', 'social', or 'environmental' subjects. SDG 17 is a common way of approaching and handling every other SDGs. Improving partnerships can also be considered as a sub-goal item of each SDG. Therefore, from the perspective of IE, SDG 17 is essential to achieve SD and shall remain as a triple bound for 'economic-social-environmental' issues. Without collaboration, it is impossible to make the world a better place economically, socially, and environmentally.

Table 2. Summarized Comparison of Categorization of SDGs in Three Previous Studies and the Concluded Category for This Study.

Number and Title of SDG	Rockström & Sukhdev, 2016	Barbier & Burgess, 2017	Dalampira & Nastis, 2019	Concluded Category for This Study
SDG 1: No poverty*	Social	Economic	Environmental	Economic
SDG 2: Zero hunger	Social	Economic	Env-Soc	Social
SDG 3: Good health and well-being	Social	Economic	Economic	Economic
SDG 4: Quality education	Social	Social	Environmental	Social
SDG 5: Gender equality	Social	Social	Social	Social
SDG 6: Clean water and sanitation	Environmental	Economic	Environmental	Environmental
SDG 7: Affordable and clean energy*	Social	Economic	Environmental	Environmental
SDG 8: Decent work and economic growth	Economic	Economic	Social	Economic
SDG 9: Industry, innovation, and infrastructure	Economic	Economic	Economic	Economic
SDG 10: Reduce inequalities*	Economic	Social	Environmental	Economic
SDG 11: Sustainable cities and communities	Social	Environmental	Environmental	Environmental
SDG 12: Responsible consumption and production	Economic	Environmental	Economic	Economic
SDG 13: Climate action	Environmental	Environmental	Env-Eco	Environmental
SDG 14: Life below water	Environmental	Environmental	Social	Environmental
SDG 15: Life on land	Environmental	Environmental	Env-Eco	Environmental
SDG 16: Peace, justice, and strong institutions	Social	Social	Social	Social
SDG 17: Partnerships for the goals*	Eco-Soc-Env	Social	Env-Eco	Eco-Soc-Env

As a result of this effort of comparison and discussion process through the view of IE, SDGs are re-categorized and illustrated according to the three main pillars on the Venn-diagram model in Table 3.

Table 3. The concluded IE approach to the Venn-diagram Model was applied to SDGs.



5.4. Evaluation Steps for the SDGs with Economic Dimensions

As we discussed in Section 5 of this paper, SD and IE syncs on three main concepts;

1. The Concept of Needs
2. The Concept of Limitations
3. The Concept of Objectives

Therefore the suggested evaluation steps are based on these three concepts. By assessing the above concepts, the suggested opportunity's contribution degree can be calculated and evaluated under the SD principles of IE. A set of questions added under these three major concepts, help to sieve the issue more finely. The grading scale can be discussed and adjusted based on the number of questions. For example, if the degree of effectiveness of any suggested opportunity on the economic dimensions of SDGs is assessed greater than 50%,

then it can be considered as eligible for implementation from IE perspective. This is a further study to be conducted. In this paper, we content ourselves with a short example of a discussion on one of the SDGs.

5.5. Discussion on SDG 9 (Industry, Innovation, and Infrastructure)

In this sub-section, we will discuss one of the economic SDGs which are determined in the previous section, in the light of IE. First of all, we will offer and use a three-step assessment tool for evaluating the current opportunities offered by IE and conventional economics for achieving each SDGs with economic dimensions, determined in the previous section (SDG 1, SDG 3, SDG 8, SDG 9, SDG 10 and SDG 12).

The primary purpose of SDG 9 is “to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation” as mentioned by the UN. One of the current opportunities introduced by the UN financial services for achieving SDG 9 is the long-term finance for PPP. Increasing the availability of long-term finance for PPP model investments in transportation, renewable energy, and communications infrastructure (The United Nations Global Compact & KPMG International, 2015, p. 32). The findings of evaluating this approach with our three-step evaluation tool are given below;

1. The Concept of Needs

The proposition of the UN has a lack of statements regarding the priority for people living in poverty and does not clearly state the preferred locations of infrastructure investments which are expected to be in the regions with poor communities.

2. The Concept of Limitations

The opportunity extends the capacity of limits for the future by investing in infrastructure and including a long repayment period. Even though the PPP model is suitable for long-term investments, the conventional loan and interest-based funding cannot please Allah (*swt*), as the people are deemed to pay the interest amounts of the funded capital.

3. The Concept of Objectives

The proposition is not against any equitable distribution of accessibility and usage of the invested infrastructure. The construction and operation periods will decrease unemployment and help the distribution of wealth and income. The proposition is not against any responsible and efficient production and consumption. The conventional loan and interest-based funding of the opportunity cannot establish economic justice and ensure respect for human dignity because of the improper use of money resources.

There are several activities and methods for making SD functional and tracking the impacts on SD indicators (Fisk, 2001, p. 466). Islamic economics and finance play an important “role in addressing the financing gap in global infrastructure needs” (Securities Commission Malaysia, 2018, p. 11). IE offers alternative instruments for supporting the financial needs of industry, innovation, and infrastructure projects by meeting the investors in a stable, well-managed, and Shari'ah-compliant investment environment. It is claimed that IE holds not only opportunities on the material returns but also puts great contributions to the UN's SDGs (Securities Commission Malaysia, 2018, p. 26). Following the discussion on SDG 9, IE's contributions to SDG 9 can be exemplified by the two unique financial structures explained below;

Cash Awqaf for Infrastructure: Cash Awqaf targets to serve society by funding buildings and services and supporting infrastructure. Their contributions can be either through providing a source of income for people in poverty or through providing the necessary funding for building superstructures and infrastructures not only for religious purposes but also for education, healthcare, transport, irrigation, and water supply (Aburounia & Sexton, 2006, p. 762). Cash Waqf system provides a balanced method of income distribution where the priority is on the necessities of local communities. The superstructures and infrastructures funded by Cash Awqaf ensure regional development without violating economic justice (Bulut & Korkut, 2019, p. 11).

Sukuk Finance for PPP: Sukuk finance plays a significant role in the financing of large projects for public well-being without falling into interest-based debt. Many of the investments in industries, innovations, and infrastructures in a developing country are out of reach of companies or governments. Funding several large projects by Sukuk manages risks smartly and helps economies to “develop by creating and producing rather than by consuming or manipulating others” (Mohammed, 2014). PPP projects that use Sukuk finance perform viability and merits that support the global needs of industry, innovation, and infrastructure (Securities Commission Malaysia, 2018, p. 12). Green Sukuk, for instance, is extremely harmonized with SD, because the impact of this Islamic financial instrument provides a balance between the sustainability of the economy, society, and environment. Sukuk provides sufficient mobility of financial resources for the economy which then brings a strong ground for self-sustainable development in that country (Standing Committee for COMCEC, 2018, p. 194).

6. Conclusion

This paper initially addressed the western origins of SD by tracking its western world motives and pointed out the reasons for the Islamic world's late adoption of this concept. As a result of world politics and wars, Muslim communities

abandoned their institutional structure which was holding the main concept of SD. The scattered relations of Muslim communities and the political and economical hegemony of the Western powers resulted in an import wave of institutions, which was learning SD through trial and error emanating from their failures.

Principles of IE and the principles of SD well-suits in their objectives and motives but the path to achieving SDGs need to be assessed from IE perspective. Redefining SD can be useful for re-understanding the concept of SD with a more precise identification introduced by Islam; *Sustainable development is the development that sustains the necessities of the present and future, by seeking and conducting the permissible activities by Islamic law.*

In particular, the principles of IE and the economic principles of SD also suit their objectives and motives. However, the suggested methods and practices by western investors and UN financial services, to achieve the economic goals, are not fully compliant with the practices of IE.

Focusing on the economic aspect of SD enabled us to concentrate on the economic opportunities and their benefits to the world. The concepts and the objectives of SD and IE in a single paper are expected to help researchers to understand and combine these two important concepts in their paradigms and practices. A re-categorization of SDGs from IE perspective is also useful for the institutions of IE's to focus on the economic dimension of SDGs. Here, SDGs are discussed on the axis of the three major aspects of the SD, and a new categorization for the SDGs is suggested inclusively, to extract the most economic-related ones. There are six SDGs categorized under economic aspect, which are; SDG 1: No poverty, SDG 3: Good health and well-being; SDG 8: Decent work and economic growth; SDG 9: Industry, innovation, and infrastructure; SDG 10: Reduce inequalities; SDG 12: Responsible consumption and production.

Following the re-categorization, based on the supportive concepts between SDG and IE, a three-step assessment process is suggested in this paper, for evaluating the current practices and discovering the opportunities of IE for achieving SDGs with economic dimensions. As an example of assessment, 'SDG 9 - Industry, innovation, and infrastructure is discussed and evaluated in detail as an example of applying the assessment tool.

The institutions of IE have had a great role in the adaptation of the SD concept by its inclusive approach to all human-human and human-environment relationships. Therefore, the context of IE shall take the opportunity to re-evaluate and support the SD. In other words, the contribution of IE along with its financial institutions will have much to say and act regarding the SDGs, which are widely accepted by the international community today.

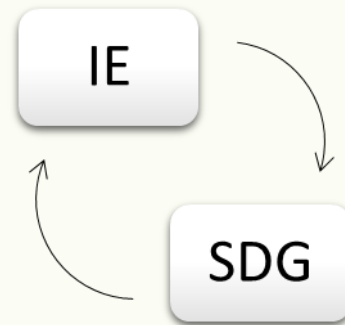
There is a huge area for IE for reflecting and highlighting its harmonization with SD especially through working on SDGs. Recommending policies and

activities, derived from IE, will support the achievement of the economic SD goals and will increase the share of IE globally. Contributing to SDGs will help Islamic financial institutions to get a wider supportive legal and regulatory framework in the world.

Recommendations

The common problems of our world cannot be solved without enabling the contributions of all cultures. All the opportunities shall be seriously considered and discussed with their pros and cons and so IE shall not remain behind with its assertiveness about SD. The methods of IE shall be recognized and examined closely by all economic systems. The effective area of IE will rise worldwide when the outcomes of opportunities introduced by IE can be testified.

Islamic state governments, Muslim communities, Muslim businesses, and in particular the Islamic financial sector shall discover their potential to contribute to the achievement of SDGs. Muslim scholars and Islamic state representatives shall open the harmful practices of classical economic systems into discussion within the SDG content and closer link IE with SD by introducing IE practices that have a positive impact on SDGs. Then it will be possible to offer best practices of IE that will have a positive impact on SDGs.



Islamic financial institutions and Muslim businesses shall track their practical measures to introduce their contributions and improvements on SDGs. Being self-confident about the positive effects of IE on SDGs, the opportunity to closer link IE with SD cannot be missed. It is recommended to study deeply and evaluate all economic SDGs, categorized in this paper, for a focused achievement in the last ten years of SDGs.

National policies and activities, derived from IE, will support the achievement of the SDGs and will increase the share of IE globally, providing a wider supportive legal and regulatory framework for IE.

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