

Review Of The Current Concepts, Dimensions, Elements And Indicators Of Social Sustainability And Social Development

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Abstract: *The concept of social sustainability is typically described as the conservation or enhancement of the welfare of current and future generations. Social sustainability is accomplishing the present basic needs of human beings with assurances of its sustained benefits for future generations. However, it is considered a complex, three-pronged, and multidisciplinary concept that is challenging to critically comprehend and measure empirically, particularly in the context of sustainable development. Furthermore, the numerous definitions, theories, and approaches increase the complexity along with the adoption and implementation of its principal tenets. Therefore, this paper presents a concise overview of the current concepts, dimensions, elements and indicators of social sustainability in the context of social development. According to the findings, social sustainability is typically involved with the continuous provision of social services (i.e. healthcare, education, housing, leisure and transport), reduce poverty and inequality (inter- and intra-generational) among residents of any community. As such, social sustainability is concerned with the current and future standard of living of people. Likewise, socially sustainable development is construed as the sustenance of social values, characteristics, and relations of people and place for the future. According to the authors, the interactions within social networks, contribution to cooperative groups and networks within the community are typical indicators of social sustainability. Furthermore, three distinct categories of social sustainability exist, namely; development, bridge, and maintenance sustainability. Furthermore, the elements of social sustainability identified were good health services, education, safe neighbourhoods, sanitation, and low-cost housing. Furthermore, the findings showed that indicators ensure that stakeholders are adequately informed about the complexity of social systems, engender comprehensive understanding and evaluation of sustainability and lastly effective communication of the empirical findings for enhanced decision making by stakeholders. In conclusion, the brief perspectives and future outlook on social sustainability indicate that the concept is crucial to sustainable development from the perspective of sustainable communities*

Keywords: Sustainability, Social Dimensions, Socio-economic Indicators, Environmental Dimension, Sustainable Development

1. INTRODUCTION

The concept of social sustainability is typically described as the conservation or enhancement of the welfare of current and future generations. Consequently, the objective of social sustainability is to accomplish the present basic needs of human beings with assurances of its sustained benefits for future generations [1], [2]. Furthermore, the concept seeks to promote life-improving conditions within a settlement.

Typically, these conditions encompass the sustained provision of healthcare, education, housing, leisure and transport to the present and future generations. According to Reddy and Thomson [3], the activities of inhabitants have conscious effects on their liveability within any community and the surrounding environment. Hence, the continuous provision of the social services (i.e. healthcare, education, housing, leisure and transport) is dependent on the progressive attitude and accountable utilisation of resources by current generations over time.

Bramley and Power [4], describes social sustainability as a three-pronged dynamic concept. Firstly, the authors posit that social sustainability is characterised by friendly and cooperative communities where crime and anti-social behaviour are non-existent or controlled to a minimum. Besides, social sustainability is characterised by the presence of leisure and cultural opportunities, social tolerance, excellent quality of life and peaceful co-existence between inhabitants of a community of difference. Secondly, the authors submit that social sustainability comprises accessible services that promote the social care, educational, and health concerns of people within a community. Lastly, social sustainability is concerned with the perceptions of friendliness, healthiness, safety, accessibility, and housing affordability with the community or social setting.

Hence, socially sustainable development can be construed as sustenance of social values, characteristics, and relations of people and place for the future. The concept was conceived in the 1980s to address global issues related to the social, economic, and environmental aspects of human existence on the planet. Consequently, the concept underscores the cohesive capacity of any community to work toward common goals aimed at promoting nutrition, health, and welfare, along with education, housing, and cultural expressions. The concept of socially sustainable development is described as development that “meets the needs of the present without compromising the ability of future generations to meet their own needs”[5], [6].

Intrinsically, social sustainability is concerned with the current and future standard of living of people. Typically, the quality of life of individuals in the community is evaluated by how the residents of a neighbourhood support fellow residents and look out for their welfare [7]. Furthermore, development is perceived as socially sustainable when the process fosters friendly communal living, reduces social differences, and high quality of life [8]. Therefore, the fundamental perspectives on social sustainability emphasise on communal living and the peaceful co-existence between people living in a community or neighbourhood.

Over the years, there has been growing attention on the social issues challenging socially sustainable development around the world. According to Isaac et al. [9], numerous social issues are affecting sustainable development practice and research. This scenario can be ascribed to

the past neglect of these issues, which are now posing significant threats to the existence of humanity on the planet. Hence, there are growing calls for the adoption of the principles of socially sustainable development by stakeholders such as governments [10]. Other analysts opine that there is an urgent need to design, develop, and adopt suitable policy frameworks aimed at accomplishing socially sustainable development.

Furthermore, it is pertinent to identify the current concepts, dimensions, elements and indicators of socially sustainable development. Various authors have examined the indicators, including normative or subjective elements of sustainable development[5], [9], [11]. Asafu-Adjaye [11], opine that the social dimension is crucial to any debates or discussions of sustainable development. The author reiterated the importance of socially sustainable development in preventing the collapse of institutions, social disorder and the negative impacts on the environment. Therefore, the authors emphasised the need to ensure the social dimension of sustainability is not neglected.

Therefore, this study seeks to present a concise review of the most pertinent concepts, types, dimensions, elements, and indicators of socially sustainable development currently available in the literature. It is envisaged that the findings will present an overview of the current perspectives and future outlook on social sustainability from the perspective of a sustainable community. This is based on the premise that a sustainable community is one that currently caters to the needs of the present, whilst preserving resources for the future generation.

2. TYPES OF SOCIAL SUSTAINABILITY

Social sustainability is a complex concept. As such, numerous authors opine that the comprehension of social sustainable requires an integration of the various social research-based methodologies. According to the authors, these techniques can enhance the evaluation of how residents of a community exercise concerns over their environment and react to changes [7], [12], [13]. To expatiate this, the study by [7], proposed three distinct categories of social sustainability namely; development sustainability, bridge sustainability, and maintenance sustainability. The various types of social sustainability are depicted in Figure 1

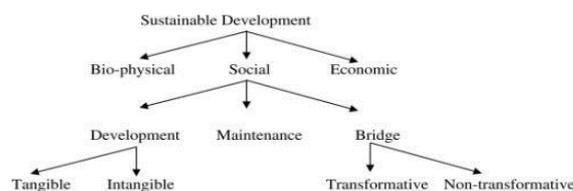


Figure 1: Various forms of Social Sustainability [7].

Based on the authors, the concept of development sustainability typically aims to reduce poverty. As a result, the critical policy trust of this class of sustainability is to eliminate the social problem of inequality in society. As such, the development aspect of social sustainability aims to meet the fundamental needs of people in the society and by so doing addressing the intergeneration and intra-generational inequality. However, the concept of bridge sustainability typically aims to evaluate the paths or ways in which behavioural changes can be challenged towards the accomplishment of environmental goals that are characterised as bio-physical in nature. As depicted in Figure 1, the bridge sustainability can either be transformative or non-transformative. Lastly, the concept of maintenance sustainability aims to preserve the

social patterns and cultural practices within any given society. In summary, the concept of social sustainability aims to create a sustainable community that is perceived as safe, inclusive, organised and guarantees fair opportunity along with excellent services and opportunities to live and work [14], [15].

3. ELEMENTS OF SOCIAL SUSTAINABILITY

The elements of social sustainability have been proposed by various researchers in the literature [14], [16]. The studies suggested that a sustainable community is denoted by specific characteristics. Typically, such societies are characterised by good health services, inexpensive housing, shopping facilities, and adequate provision of education. Other notable features are low crime levels, clean streets, low traffic congestion, road pavement repairs, parks and open spaces. Lastly, the authors highlighted that such communities are also characterised by good work prospects, low pollution levels, amenities for young children's activities, along with sports, leisure, cultural, and community activities.

Dempsey, et al. [15], further summarised the features of a sustainable community. According to the study, a sustainable community is characterised by health, quality of life and well-being. Furthermore, the collective characteristics of such communities are characterised by social inclusion, capital, safety, mixed tenure, and communal cohesion. The networks, interaction, sense of community and belonging are also typical of such communities. Lastly, factors such as employment, residential stability, active community organisations, and cultural tradition are also constant features of such societies

4. INDICATORS AND FUNCTIONS OF SOCIAL SUSTAINABILITY

The term "indicators" refers to signposts used to reveal the worth related to any occurrence [17], [18]. Furthermore, indicators are the descriptive models of naturally and human-induced processes determined empirically [17], [19]. Over the years, stakeholders have reiterated the need for the adoption and standardisation of indicators for evaluating sustainability in the scientific community. This requirement culminated in the proposal adopted by stakeholders in 1992 during the United Nations (UN) Conference on Environment and Development in Rio de Janeiro (Brazil) [20].

Based on the conference, various social sustainability indicators were proposed as reported in the literature [19], [21]. Furthermore, the authors highlighted three functions of social sustainability indicators. Firstly, the indicators ensure that stakeholders are adequately informed about the complexity of social systems which are typically hard to evaluate empirically. Secondly, the indicators engender a comprehensive understanding and evaluation of sustainability in communities. Lastly, the indicators ensure the effective communication of the empirical findings to foster balanced decisions by stakeholders. According to Wang, et al. [22], various organisations, departments or agencies within the government are considered key stakeholders in social sustainability and development. Typically, these include the governmental agencies for Development, Environment, Housing, Lands, Planning, Buildings, Transport, Environmental Protection, Water Supplies, and Drainage Services.

Other researchers have suggested other indicators of social sustainability in the literature [4],

[15]. According to the authors, the interactions within social networks, contribution to cooperative groups and networks within the community are typical indicators of social sustainability. Likewise, the pride or sense of place, safety and security are also considered critical indicators with the context of social sustainability. Furthermore, the studies observed that the interactions within social networks could be termed social capital. Typically, the so-called social capital is linked to the mutual actions and reactions among inhabitants within the community. Intrinsically, the impact of the social interaction on the cohesion of any locality and stimulates changes such as developments within the community. This confirms that there is a link between norms and value and the sense of a place, which are shaped by rules and regulations, which direct the developmental patterns within any community.

Baffoe and Mutisya [23], proposed indicators related to the dimensions of social sustainability. According to the authors, the representation mechanism, collective state, and individual access are critical indicators of social sustainability. Table 1 presents an overview of the indicators of social sustainability. Based on Table 1, Baffoe and Mutisya [23], observed that

Table 1: Perspective of Social Sustainability Indicators [23]

S/ N	Dimension	Indicators
1	Representation Mechanism	(a) Participation in decision making
		(b) Grassroots development initiatives
2	Collective State	(a) Group membership
		(b) Trust
		(c) Family ties
		(d) Crime-free environment
3	Individual Access	(a) Education
		(b) Healthcare
		(c) Employment
		(d) Housing
		(e) Food

family ties and group membership are among the highest indicators of social sustainability in Kibera. The study observed that the residents consider the social capital and bond among families as an avenue to accomplish inclusiveness within the community. Other authors have observed that safety is also fundamental to social sustainability with any given community. Hence, the poor maintenance conditions with the environment can be detrimental to the psychosomatic of people’s sense of safety and inclusiveness [23].

Colantonio [24], also proposed another perspective on social sustainability. According to the author, social sustainability stems from developments in the thematic areas of specific dimensions. These comprise purely social and socio-based themes associated with institutions, economics, and the environment as indicated in Figure 2 and Table 2

Table 2: Other Perspective of Social Sustainability [24].

S / N	Dimension	Indicators
A	Social	(1) Access to resources
		(2) Community needs
		(3) Conflicts mitigation
		(4) Cultural promotion
		(5) Education
		(6) Elderly and ageing
		(7) Enabling knowledge management (access to e-knowledge)
		(8) Freedom
		(9) Gender equity
		(10) Happiness
		(11) Health
		(12) Identity of the community/civic pride
		(13) Image transformation and neighbourhood perceptions
		(14) Integration of foreign immigrants and residents
		(15) Leadership
		(16) Justice and equality
		(17) Leisure and sport facilities
		(18) Less able people
		(19) Population change
		(20) Poverty eradication
		(21) Quality of life
		(22) Security and crime
		(23) Skills development
		(24) Social diversity and multiculturalism
		(25) Wellbeing
B	Socio-Institutional	(26) Capacity building
		(27) Participation and empowerment
		(28) Social capital
C	Socio-economic	(29) Economic security
		(30) Employment
		(31) Informal activities/economy
		(32) Partnership and collaboration
D	Socio-environmental	(33) Inclusive design
		(34) Infrastructures
		(35) Environmental Health
		(36) Housing (quality and tenure mix)
		(37) Transport
		(38) Spatial/environmental inequalities

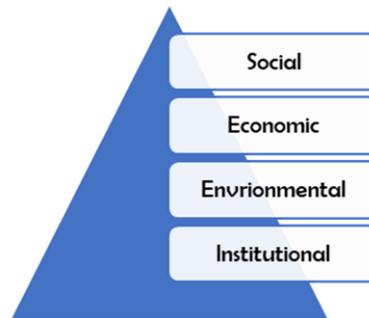


Figure 2: Indicators of Social Sustainability. Adapted from [24].

According to Table 2, there are twenty-five [25], indicators purely associated with the social dimension of social sustainability [24], [18]. In addition, the socio-institutional consists of three indicators, whereas the socio-economic indicators and socio-environmental are made up of four (4) and six (6) indicators, respectively. However, it is essential to highlight that there are some overlaps between the indicators. For example, there is an overlap between education and skills development, along with enabling knowledge management and capacity building.

Other overlying indicators include the foreign migrants and resident's integration, along with social diversity and multiculturalism, health and welfare; and poverty eradication, economic security, and employment, respectively. Over the years, various authors have identified and utilised various social sustainability indicators to evaluate social, economic and environmental systems in the literature. For example, the study by Magis [25], examined the role of the resilience of communities as an indication of social sustainability. Carrera and Mack [26], assessed the sustainability of energy technologies through the use of social indicators in the European Union (EU). Dlouha, et al. [27], highlighted the importance of social learning in the process of sustainable development through sustainability-oriented indicators in regional networks. Husgafvel, et al. [28], adopted social sustainability indicators to evaluate the performance of the process industry.

Other studies have also adopted and utilised social sustainability indicators for assessing developments in various sectors such as the maritime and construction [29], supply chains [30], urban development [31], health [32], oil and gas [33], [34], renewables [35], [36], and agriculture [37]. In summary, these studies indicate that social sustainability indicators are crucial tools that can be employed to identify, evaluate, and address challenges within any given community. Besides, these indicators are critical to decision-making systems used by stakeholders in various disciplines spanning business, industry, academia and government

5. CONCLUSION

The paper presented an overview of the current concepts, dimensions, elements and indicators of social sustainability in the context of social development. In addition, it presented a review of the literature on the application of social sustainability indicators in sectors of society. Based on this, social sustainability is considered a three-pronged, complex, and multidisciplinary concept. Fundamentally, social sustainability is concerned with the current and future standards of living of people, which is typically based on preserving the welfare of current and future generations. The study also finds that social sustainability is characterised by distinct features

such as the sustenance of social values, characteristics, and relations of people and place for the future. Furthermore, three distinct categories of social sustainability exist, namely; development, bridge, and maintenance sustainability. Conclusively, the elements of social sustainability identified were good health services, inexpensive housing, shopping facilities, and adequate provision of education. Other notable features are low crime levels, clean streets, low traffic congestion, road pavement repairs, parks and open spaces. Lastly, the indicators of social sustainability, which are essentially the descriptive models of naturally and human-induced processes determined empirically, were identified and highlighted in detail. The findings showed that indicators ensure that stakeholders are adequately informed about the complexity of social systems, engender comprehensive understanding and evaluation of sustainability and finally effective communication of the empirical findings for enhanced decision making by stakeholders.

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