Incorporating Cultural Dimensions in the Sustainable Development Goals (SDGs)

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Culture is a critical factor for human development, welfare, democracy, peace and security. However, the integration of culture in the development processes is still debatable. Theoretically, culture has been widely recognized as integral part of socio-economic development, but practically, it is not sufficiently and consistently incorporated in development processes and, in turn, it is still an immeasurable development variable. The main purpose of this research is to address culture in its relationship with development. This relationship is addressed from two perspectives, an observational and analytical perspective and a computational perspective.

Analytically, the researchers try to answer key question which is why culture integration in development processes is problematic? In this regard the researchers conduct a brief review of the path towards integrating culture in development and the position of culture on the agenda of the international community from the 1960s to the present. Computationally, the researchers try to answer another key question which is how culture could be integrated in the Sustainable Development Goals (SDGs). The researchers propose the Social Network Analysis (SNA) as practical tool to monitor the linkages between cultural indicators and the SDGs indicators and to highlight the SDGs that are most influenced by culture.

Keywords: Culture, SDGs, Social Network Analysis, Culture and Development.

1. Introduction

Talking about human development, culture has the power to exist and impose itself, yet it is almost uncatchable. In recent years, increasing attention has been given to culture for its vital role in all development paths. Throughout the course of the Millennium Development Goals (MDGs) and then the Sustainable Development Goals (SDGs), a controversy about how to position and integrate culture in these goals has been raised. In this context, the UNESCO and several international and regional organizations and development agencies have exerted unremitting efforts to integrate culture thematically in

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the SDGs. Ultimately, the international community failed to integrate culture as an independent goal within the SDGs. This can be attributed to several reasons that we will discuss shortly in the following paragraphs.

One of the main reasons behind the difficulty in directly incorporating culture in SDGs is that culture is still, theoretically, equivocated and therefore a controversial term. It has become commonplace in the humanities field that talking about culture always begins with an attempt to define and redefine what this term means. There is a wide range of definitions, which makes the term **"culture"** one of the most flexible terms, as it can expand to include everything and may be narrowed to cover specific phenomena. On the cognitive level, this constitutes a theoretical problem when the term culture is intended to be an instrument of analysis. It is easy, then, to talk about culture, but it is difficult to define it.

The definition problem of the term culture, as well as its excessive use in many different contexts, may have also had an impact in delaying the integration of culture into development policies. Culture has always been viewed as a complex term, a politically and socially hypersensitive subject, and a cliché that is now widely used in all contexts (political, social, educational, economic, etc.) (Marana, 2010).

The controversy surrounding the place of culture in the development policies reveals this problematic situation, which ultimately resulted in the failure to integrate culture as an independent goal within the SDGs. However, it is difficult to address the issues of education, gender equality, poverty reduction, and environmental protection and almost all SDGs without evoking the cultural dimension, both in terms of the reasons that explain the development shortcomings, and in terms of the desired results.

Another major challenge that development policies and agendas are still facing in incorporating culture is the lack of targeted data and indicators quantifying the relationships between culture and development and contributions of cultural aspects in development. This has resulted in reprioritizing culture in both international and

national development programs and strategies. It is the question of indicators which embody methodologies that demonstrate culture's multidimensional role in development processes through facts and figures. This, in turn, leads to unveil challenges and highlight opportunities for the future.

The UNESCO 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions provides a framework for informed, transparent and participatory systems of governance for culture. This convention aims to support four main goals, namely: governance for culture, flows and mobility, sustainable development, and human rights. In addition, the UN Research Institute for Social Development detected a set of cultural indicators of development, including cultural freedom index, creative empowerment index, cultural dialogue index, and the cultural index of development and life expectancy.

The **Culture for Development Indicators (CDIS)** provides a timely response to this challenge. The UNESCO CDIS is a research and advocacy tool specially designed for the development community and all stakeholders interested in promoting the culture for development agenda. Inspired by UNESCO's inclusive vision of culture's potential for development, the CDIS seeks to contribute to the growing recognition of culture's development potential.

"The CDIS implementation tools provide guidance for maximum policy impact through culture's integration into development strategies. In these ways، the Indicators contribute to implementing UNESCO's 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions – the first international legally-binding instrument to put culture and sustainable development at its core. The Culture for Development Indicators has been implemented in 11 countries worldwide during two test phases. This has ensured verification of the pertinence and feasibility of the indicators, and it has generated unique data، while producing concrete impacts" (UNESCO, 2014b, p. 3).

In this paper, the researchers tend to address culture in its relationship with development in general, and particularly with the SDGs. This

relationship is addresses from two perspectives, an observational and analytical perspective and a computational perspective.

Analytically, the researchers conduct a brief review of the path towards integrating culture in development, the position of culture in the SDGs. The researchers also review the position of culture on the agenda of the international community from the 1960s to the present, and the interaction of these transformations with human rights and development.

Computationally, the researchers make use of some of the available and related indicators to highlight the linkages between cultural indicators and SDGs indicators, and therefore to highlight the areas in SDGs that can be connected to culture, and so we can understand the inter-dependencies between them. This may help the policymakers in formulating development policies considering the cultural dimensions. The paper is organized as follows: Section two displays the relationship between culture and development from an analytical perspective. Section three proposes the interlink ages between cultural indicators and the SDGs from a computational perspective. Section four concludes the research with some remarks and notes and paves the way for further research in this field.

2. Culture and Development– An Analytical Perspective

It is still possible to think about culture in isolation from development, because culture is a flexible concept and an unlimited field, and similarly it was prevalent previously to think about development in isolation from culture, because the concept of development was narrow enough to accommodate only the vocabulary of the economy. This matter was overlooked a few decades ago, as it is no longer valid to think about development in isolation from the social, cultural and political dimensions.

In the past, culture was absent from developmental thought because most conceptual structures revolved mainly around economic growth, levels of per capita income, or extreme poverty reduction in line with the overall system of thinking that was used for decades in the aftermath of World War II. At the present time, despite their ultimate

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importance, the development and overcoming of poverty in the world cannot be analyzed based on these principles alone (Sempere, 2012).

2.1. Paradigm Shift in the Development Thought

The developmental thought has undergone a major transformation thanks to the intellectual and political efforts that has been exerted in order to recognize the social and cultural dimensions of development since the beginnings of the second half of the twentieth century. The narrow economic approach has been surpassed as a result of tremendous developments that have taken place in several areas, foremost of which are human rights that have expanded globally and locally since the beginnings of the second half of the twentieth century. Such developments had an impact on the developmental thought, which began to move towards a more comprehensive approach in which the economic, social, political, environmental, cultural, and legal dimensions come together. Deprivation, exclusion and discrimination are phenomena that cannot be contemplated only from an economic perspective but are the product of other factors and of political, social and cultural entanglements. In addition, they are no longer seen as the inevitable fate of some specific social groups, but not others. However, they are seen now as social and political phenomena resulting from an imbalance in the system of rights and justice.

Indeed, the relationship between culture and development is an existing one, regardless of how and when it is recognized. The presence of the cultural dimension in economic and social trends is a fundamental issue and a precedent for efforts to recognize and structure the relationship between culture and development. Culture (seen as an ideology) has formed the value system and the framework governing economic and social systems.

The discovery of culture as a fundamental dimension in the conduct of systems was not initially the result of economic or development motives as much as it reflected political concerns that escalated due to the aspirations of the state in the post-colonial period, and then the waves of migration and the conflict of identities. These matters increased and became more acute with the acceleration of

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globalization. Consequently, the entrance of culture to the political field was through the concept of multiculturalism, as the first emergence of the idea of pluralism was in public discourse in the late sixties and early seventies of the twentieth century.

Pluralism did not necessarily mean "cultural pluralism" as much as the multiplicity of political actors. Although, multicultural, linguistic, or ethnic pluralism are reflections of diversity that already exists in societies, pluralism in political theory has a different meaning to this. In political theory, pluralism means the distribution of political power or the distribution of decision-making among diverse groups or institutions (Seymour-Smith, 1986, p. 217).

Cultural pluralism, or multiculturalism, on the other hand, was apparent in societies that witnessed early waves of migration, such as Australia and Canada. At this period, Australia and Canada started to allow new immigration, which at the time "gave the Asian character" to these two nations. Thinking of multiculturalism was associated with identity issues, and therefore the emergence of the term "identity politics" in the late twentieth century was not merely a theoretical addition of conceptual construction linked to cultural pluralism, but rather an expression of real problems related to the political and cultural field that pose real challenges to building multicultural systems. Figure (1) represents a screenshot of Google Ngram viewer that shows the emergence and progress of main cultural concepts. It is noticeable here that the curves have been significantly raised since the 1980s.
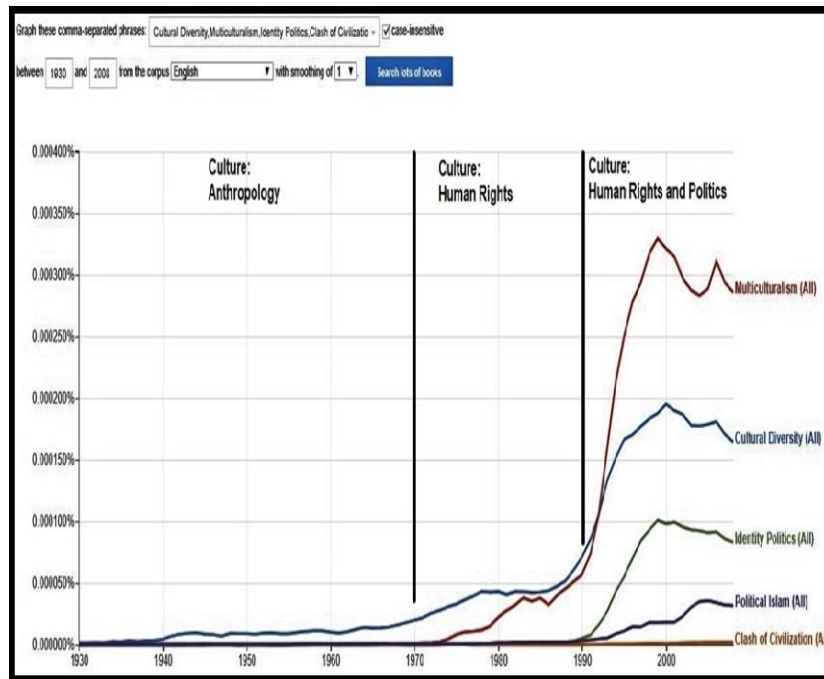
Figure (1): Google Ngram of Multi-culturalism and Cultural Diversity relative to other political concepts.

Concurrent with these political concerns were the emergence of unremitting attempts to build bridges between culture and development. UNESCO began to think about cultural policies and their relationship to development at the Venice Conference in 1970, which was followed by regional conferences at the level of Europe (1972) and Asia in (1973), and the African conference, entitled Cultural Policies in Africa. The latter was a turning point, as most developed countries demanded at least the integration of various cultural dimensions of development (Sempere, 2012).

It can be considered that the efforts of the second half of the twentieth century, which spanned the new millennium and are still mostly efforts to recognize the importance of culture with attempts not yet completed for the placement of culture within economic and political systems in a manner befitting its place. However, it seems that culture imposes its presence more than it should be, as it is present and

powerfully with its good and bad sides. The good side is that it is a basic engine of development, democracy and coexistence. The bad side is that it is also an engine for ethnic and sectarian conflicts, as well as it may play a central role in exclusion, discrimination and tyranny. As the efforts of international bodies, international cooperation agencies and supporters of cultural peculiarities in raising the importance of culture have continued, they have in turn been criticized by many trends that have been concerned with revealing the dark side of culture and employing it by the political field, especially with regard to identity politics and forms of cultural resistance to new global values Specifically, the values of human rights and personal freedoms.

Developmental thought was not initially connected with the paths that started in order to stimulate recognition of the values and importance of culture. We note, for example, that the first global decade of the United Nations (1960-1970), which was devoted to the development field, came without any mention of the cultural dimension, even though UNESCO had earlier started urging the international community to pay attention to culture. However, it seems that the development path did not intersect with the path of culture until the 1970s. This is shown by tracing the course of the development of the term culture, as defined by UNESCO, during the second half of the twentieth century and the beginning of the first century, according to the following four stages (Marana, 2010):

1. In the 1950s and 1960s, the concept of culture was expanded from a definition more related to artistic production to the concept of cultural identity. During this period, UNESCO defended culture in response to certain situations such as freedom from colonialism, and the recognition that all cultures are equal.

2. In the 1970s and 1980s, awareness started about the vital link between culture and development, which will form the basis of UNESCO's international cooperation and solidarity with developing countries.

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3. In the 1980s and 1990s awareness began to form around the aspirations and foundations of building democracy, and to confront the exclusion and discrimination of minorities, indigenous people and immigrants.
4. Starting from year 2000, there was a movement towards inspiring cultural dialogue with its richness and defining culture as a common human heritage through the United Nations Declaration on Cultural Diversity in 2001. The Declaration also recognized two dimensions of diversity. The first dimension focused on emphasizing the harmonious interaction between different cultural identities, diverse and dynamic, while the second dimension defended the creative diversity and diversity of cultural patterns and expressions inherited from cultures (Records of the General Conference, 31st session, Paris, 15 October to 3 November 2001, v. 1: Resolutions Published in 2002).

In this regard, Marana (2010) indicated some of the UNESCO's milestones in relation to culture and development, as follows:
1. The Declaration of the Principles of International Cultural Cooperation (UNESCO, 1966)
2. First Inter-Governmental Conference on the Institutional, Administrative and Financial Aspects of the Cultural Policies (UNESCO, 1970).
3. The World Conference on Cultural Policies – MONDIACULT (UNESCO, 1982).
4. The World Decade for Cultural Development (UNESCO, 1988 – 1997).
5. The "Our Creative Diversity" Report. Report of the World Commission on Culture and Development (UNESCO, 1995).
6. Universal Declaration on Cultural Diversity (UNESCO, 2001).
7. Convention on the Protection and Promotion of the Diversity of Cultural Expressions (UNESCO, 2005).

It is worth noting here that Article 13 in the Convention on the Protection and Promotion of the Diversity of Cultural Expressions is entitled as "Integration of Culture in Sustainable Development".

Moreover, the efforts did not stop, as cultural approaches continued either implicitly, or explicitly. Implicitly, as in the document of the Conference on Sustainable Development – **Rio+20** – held in 2012 This conference was entitled "The Future We Want", and in this conference culture and sustainable environment were linked. Explicitly, as stated in **The Hangzhou Declaration**, entitled "Placing Culture at the Heart of Sustainable Development Policies", adopted by the World Conference organized by UNESCO in China in 2013.

Likewise, the Special Action Plan touched on **International Decade for the Rapprochement of Cultures** (2013-2022) mentioned the relationship between culture and the goals of sustainable development under the title "Fostering dialogue for sustainable development and its ethical, social and cultural dimensions", where the document stated that:

"As poverty and environmental degradations are recognized causes of conflict and obstacles to reconciliation between and within nations, the rapprochement of cultures builds on the same requirements as sustainable development, notably with respect to the often neglected ethical, social and cultural dimensions of the latter. This intangible dimension of development is nonetheless indispensable to address if one hopes to see modes of consumption and production transformed democratically and progressively so that humankind can achieved shared well-being, notably within the post-2015 agenda … All cultures, including in particular the rich body of traditional and indigenous knowledge systems, offer a resource of values, attitudes and behaviours which can only inform policies and practices of sustainable development … In other words, the imperative to organize and support cultural pluralism at all levels remains a vital and indispensable dimension towards achieving lasting peace" (UNESCO, 2014a).

However, it should be noted that these efforts were launched and continued at a time when the term culture remained cloudy and controversial. It is true that this matter did not prevent the taking of cultural initiatives in the field of heritage protection, support for creative industries and other aspects of reform and art, but the

formulation of an integrated vision of the integration of cultural aspects in the field of development has remained elusive for political and ideological considerations, and this explains why the efforts of cultural supporters did not succeed in integrating forces of culture into the Millennium Development Goals (MDGs) and then the SDGs.

2.2.   Approaches to Incorporate Culture in Development
There are multiple approaches to view culture as a basic dimension in the field of welfare and human development, where we can talk about cultural values, cultural rights, cultural freedoms, cultural development, and cultural diversity. In fact, all of these terms were and still are guiding many efforts that aimed at recognizing the importance of culture, but all of them face problems in application, as culture itself cannot be understood outside the political and social contexts, but rather these contexts form an integral part of its structures, dynamics and balances.

This diversity of cultural terms proves that there are multiple approaches to understanding the relationship between culture and development. Incorporating cultural dimensions in the developmental thought and development policies may happen in many ways and may take different approaches. However, in this study the researchers refer to two possible paths or approaches to incorporate cultural dimensions in development; the values approach and the rights approach.

2.2.1. The "Values" Approach
Values represent the core elements of any culture. One of the defining features of culture is that is has a value system. Individuals within a specific group usually tend to classify any phenomena into good or bad and right or wrong categories in a way that reflects the cultural orientation of the group. A value system, then, gives stability to a culture. It justifies its bearers' actions or thoughts and re-assures them that they are behaving as their society expects. Behaviour significantly deviating from the norms established by a value system enacted in the society will be met by threats and punishments. On the other hand, behaviour conforming to the norms will be rewarded in a variety of

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ways. Analytically, a value system plays an important role in preserving a society (Tawadros, 2012).

From this perspective, Björn Hettne (2009) argues that in order to explain the changes that have occurred in the path of Western development, we should shed light on three fundamental values of relative importance and weigh, namely: freedom, order, and justice.

In this regard, the researchers view that any change in a specific path must result from the influence of certain values on this path. Such a view is based on the fact that development trends are usually governed by basic values that express ideological and political trends. These trends transcended national borders to be influential in blocs at the international level and reached its climax during the Cold War between the eastern and western blocs. Consequently, thinking of culture as a value system with certain ideology makes it central to understand the dynamics of political, economic and social systems.

2.2.2. The "Rights" Approach

Away from the values approach, there is another approach that is most common and more accepted than the values approach. This approach is based on the concept of cultural pluralism, or multi-culturalism. There are increasing voices demanding the establishment of systems and formulating policies that respect cultural diversity. In this sense, it is close to the legal model, or we may call it the "Rights" Approach, e.g. the rights of minorities, migrants, indigenous people, etc.

Although cultural pluralism has its supporters on several levels, however, there are trends that see that multiculturalism discourse entails risks of submitting to the demands of defenders of cultural identities and particularities by setting legislative or cultural policies to protect customs, traditions and beliefs that contradict the values of citizenship and the principles of human rights. In fact, the importance of multicultural systems is not only that they protect cultural diversity, but also providing protection to societies from the dangers of diversity due to the clash of identities.

Regardless of the controversy associated with multiculturalism from the perspective of identity politics, there is a consensus that cultural

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pluralism has become a catalyst for development if not one of the basic conditions for ensuring balanced and fair human development in light of globalization that has increased the pace of human movement and interactions, as well as an increased awareness of rights Among individuals, minorities, and indigenous peoples.

This assertion is found in many development literature and international documents, including the Human Development Report 2004, which will be referred to later, and the document of the International Decade for Cultural Rapprochement (2013-2022), which states that:

"recognition of and respect for all forms of knowledge and traditions that contribute to safeguarding the resilience of ecosystems and to promoting sustainable uses notably in relation to the management of water and other natural resources is the best approach to enhance during this Decade. … Sustainable development cannot happen without democracy, inclusive participation, social inclusion and respect for cultural diversity. In other words, the imperative to organize and support cultural pluralism at all levels remains a vital and indispensable dimension towards achieving lasting peace. Hence, there is a need to multiply the platforms of exchange and to collect innovative practices that are conducive to cultural pluralism at local, national and regional levels. Raising awareness on cultural expressions of minorities, migrants, indigenous peoples and other disadvantaged and excluded groups to foster respect and mutual understanding for social cohesion will thus be an important feature of the International Decade. This will also contribute to stress that cultural heritage and creativity can contribute to the development and the eradication of poverty, if a balance is struck between the dynamics of culture and the requirements of the market, while emphasizing that the trade of cultural goods and services is never only a commercial exchange but also a cultural interaction and, as such, an opportunity for the rapprochement of cultures." (UNESCO, 2014a, p. 5 – 6).

While cultural pluralism, multiculturalism, or the right to express cultural diversity represent one of the common approaches from a

cultural and political perspective, the international discourse included approaches that focus more on the human rights approach.

Perhaps the most prominent example in this regard is the human development report issued in 2004 entitled "Cultural Liberty in today's Diverse World", which confirms that Human deprivation can take place in multiple ways, and that past human development reports focused only on problems such as illiteracy, loss of health care, unemployment, and destitution. However, a substantial expansion was required to focus on cultural freedom and acknowledge its importance, and it is stated in the report.

The report states that: "Denial of cultural liberty can generate significant deprivations, impoverishing human lives and excluding people from the cultural connections they have reason to seek. So, the human development perspective can be extended to accommodate the importance of cultural liberty" (Human Development Report, 2004, p. 13).

In view of the reasons mentioned in the report to highlight the importance of cultural liberty, it is noted that two of these reasons relate to the role of cultural freedom in ensuring human freedom of choice, a matter that is not guaranteed by social, economic and political opportunities, and the third reason directly links cultural liberty to other spheres: "Cultural liberty is important not only in the cultural sphere, but in the successes and failures in social, political and economic spheres. The different dimensions of human life have strong interrelations. Even poverty, a central economic idea, cannot be adequately understood without bringing in cultural considerations" (Human Development Report, 2004, p. 13).

Indeed, cultural liberty or freedom is an issue that transcends cultural rights contained in the International Covenant on Economic, Social and Cultural Rights. This is because it includes components related to civil and political rights, and therefore can be measured through many human rights data such as freedom of opinion and expression, freedom of thought and belief, freedom of scientific and academic research, and the right to participate in public life.

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Thus, the relationship between culture and development from the perspective of cultural liberty is based on a well-recognized principle in the field of human rights, which is interrelatedness and indivisibility of human rights, the principle that was adopted at the Human Rights Conference in Vienna in 1993, which states that:

"All human rights are universal, indivisible and interdependent and interrelated. The international community must treat human rights globally in a fair and equal manner, on the same footing, and with the same emphasis. While the significance of national and regional particularities and various historical, cultural and religious backgrounds must be borne in mind, it is the duty of States, regardless of their political, economic and cultural systems, to promote and protect all human rights and fundamental freedoms" (Vienna Declaration and Programme of Action, 1993, Section I, no. 5).

2.3. Culture and SDGs
2.3.1. Culture for Development Indicators (CDIS)

The UNESCO Culture for Development Indicators (CDIS) project proposes a novel methodology to demonstrate through empirical data culture's role as both a driver and enabler of sustainable development processes, as acknowledged by several Resolutions adopted by the UN General Assembly (Resolution A/RES/65/166 of 2010, Resolution A/RES/66/208 of 2011, Resolution A/RES/68/223 of 2013, and Resolution A/RES/69/230 of 2014).

"To assess the multidimensional role of culture in development, the CDIS project addresses culture not only as a sector of activity but also in terms of values and norms that orient human action. Thus, this innovative tool encourages an inclusive vision of culture's interactions with development extending beyond economic benefits to explore more intangible benefits such as social cohesion, tolerance and inclusion. To this end, the CDIS methodology examines seven key policy dimensions: Economy, Education, Governance, Social Participation, Gender Equality, Communication and Heritage" (UNESCO, 2014b, p. 5). These policy dimensions can be further clarified as follows:

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1. The **Economy Dimension** measures the contribution of the cultural sector in economic development and its potential for growth.
2. The **Education Dimension** measures the priority given by public authorities to support an education system that offers the broadest possible coverage, values diversity and openness, and promotes a competitive and creative class.
3. The **Governance Dimension** measures the public commitment towards creating the conditions to structure the cultural sector, strengthen cultural processes, and promote diversity of views and voice.
4. The **Social Participation Dimension** measures the way in which cultural practices, values and attitudes may orient behaviour, inclusion, cooperation and individual empowerment.
5. The **Gender Equality Dimension** measures the objective and subjective gaps between women and men in their opportunities and rights to take part in cultural social, economic and political life.
6. The **Communication Dimension** measures the conditions of access, enjoyment of diverse content and freedom of expression.
7. The **Heritage Dimension** measures the public commitment to set up and enforce standards, policies and measures to protect and promote heritage, while ensuring access and sustainability.

Moreover, these seven dimensions are measured by a set of twenty-two quantitative and qualitative indicators that are constructed to be used for measuring policy impact in the CDIS dimensions. These dimensions are therefore used to provide an evidence-based and informed approach to the introduction of culture into national and international development strategies as well as to cultural policy formulation. Figure (2) shows theses twenty-two indicators grouped under the seven dimensions in a CDIS Matrix.

The twenty-two dimensions play the following three roles:

- Demonstrate with data how culture and development interact and enrich one another.
- Assess the environment in place for sustaining and enhancing cultural assets and processes for development.
- Offer a global overview of national challenges and opportunities, informing cultural policies and development strategies to fully profit from culture's potential.

Figure (2): The CDIS Matrix (Source: UNESCO Culture for Development Indicators: Methodology Manual, 2014, p. 13).

Unfortunately, the CDIS suffers from an availability limitation in that it not all countries participated in it. The countries participating in the CDIS project are: Armenia, Azerbaijan, Bosnia and Herzegovina, Burkina Faso, Cambodia, Colombia, Côte d'Ivoire, Ecuador, Georgia, Ghana, Mexico, Montenegro, Namibia, Peru, Eswatini, Ukraine, Uruguay, Viet Nam, and Zimbabwe.

Moreover, it suffers from another limitation, which is that the quantitative values of these indicators with time does not exist, and hence there is no evidence for direct linkages between the indicators of CDIS and the targets of the SDGs. Therefore, we will not be able to quantitatively build links between culture and SDGs using CDIS.

2.3.1. Culture|2030 Indicators

The UNESCO Thematic Indicators for Culture in the 2030 Agenda (Culture|2030 Indicators) is a "framework of thematic indicators whose purpose is to measure and monitor the progress of culture's contribution to the national and local implementation of the Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development" (UNESCO, 2019, p. 10).

This framework assesses the role of culture as a sector of activity, and the transversal contribution of culture across different SDGs and policy areas. It provides a conceptual framework and methodological instruments for countries to assess the contribution of culture to the SDGs as part of the existing implementation mechanisms of the 2030 Agenda at the national level. In addition, it provides evidence of culture's transformative role, making it more visible and tangible.

In brief, The Culture|2030 Indicators framework aims at (UNESCO, 2019):
- Making the contribution of culture in sustainable development more visible, or catchable.
- Providing evidence-based results to inform policy makers.
- Building a knowledge base of action.
- Monitoring the progress of culture's contributions to the 2030 Agenda.

The Culture|2030 Indicators framework is built on four transversal thematic dimensions and twenty-two indicators under these four dimensions. The four thematic dimensions are (UNESCO, 2019):

1. **Environment and Resilience.** To assess the role and contribution of culture to sustainable human settlements with a focus on cultural and natural heritage and urban environment. The proposed indicators under this dimension assess the level of commitment of countries to the safeguarding of cultural and natural heritage and provide evidence of sustainable management of heritage and the inclusion of traditional knowledge in culturally sensitive planning.

2. **Prosperity and Livelihoods.** To assess the role and contribution of culture in driving and enabling more inclusive and sustainable economies, in line with the 'Prosperity' pillar of the SDGs, by generating income and employment, as well as stimulating revenue through cultural goods, services, and enterprises. The proposed indicators under this dimension assess the contribution of culture to key aspects of the economy such as GDP, trade, employment, businesses, and household expenditure.

3. **Knowledge and Skills.** To assess the role and contribution of culture in building knowledge and skills including local knowledge and cultural diversity. Specifically, it focuses on the contribution of culture to the transmission of local cultural values, knowledge and skills and fostering empowerment through education training, processes, policies and materials. The proposed indicators under this dimension assess the level of commitment of public authorities and institutions in integrating and leveraging cultural knowledge to foster respect and appreciation of cultural diversity, understanding of sustainable development and transmission of cultural values, as well as in prioritising cultural training (including advanced training in heritage conservation) and promote skills and competence in creative fields .

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4. **Inclusion and Participation.** To assess the role and contribution of culture in building social cohesion, as well as in fostering inclusion and participation. It focuses on the abilities of people to access culture, the right of all people to participate in cultural life, and their freedom in cultural expression, including artistic and creative freedom. The proposed indicators under this dimension assess the capacity of culture to stimulate effective engagement of local communities in public life.

In Table (1), the researcher summarizes the four thematic dimensions, as well as the 22 proposed indicators within them, at the left-hand side, and the related goals and targets of SDGs on the right-hand side.

Culture|2030 Indicators Framework		SDGs
Dimensions	**Indicators**	**Targets**
1. Environment and Resilience	1. Expenditure on heritage 2. Sustainable Management of heritage 3. Climate adaptation & resilience 4. Cultural facilities 5. Open space for culture	2.4 Sustainable foodways & agriculture 6.6 Water related ecosystems 9.1 Quality infrastructure 11.4 Cultural & natural heritage 11.7 Inclusive public spaces 12.b Sustainable tourism management 13.1 Climate & disaster resilience 14.5 Marine areas conservation 15.1 Sustainable terrestrial ecosystems 16.4 Recovery of stolen assets
2. Prosperity and Livelihoods	6. Culture in GDP 7. Cultural Employment 8. Cultural Businesses 9. Household expenditure 10. Trade in cultural goods & services 11. Public finance for culture 12. Governance of culture	8.3 Jobs, entrepreneurship & innovation 8.9 Policies for sustainable tourism 8.a Increase Aid for Trade 10.a Differential treatment on trade 11.4 Cultural & natural heritage
3. Knowledge and Skills	13. Education for Sustainable	4.4 Skills for employment 4.7 Skills for sustainable

Culture|2030 Indicators Framework		SDGs
Dimensions	**Indicators**	**Targets**
	Development 14. Cultural knowledge 15. Multilingual education 16. Cultural & artistic education 17. Cultural training	development 8.3 Jobs, entrepreneurship & innovation 9.c Access to information technologies 12.a Sustainable consumption 13.3 Education on climate adaptation
4. Inclusion and Participation	18. Culture for social cohesion 19. Artistic freedom 20. Access to culture 21. Cultural participation 22. Participatory processes	9.1 Quality infrastructure/equitable access 9.c Access to information technologies 10.2 Social inclusion 11.7 Inclusive public spaces 16.7 Participatory decision-making 16.10 Fundamental freedoms 16.a Prevention of violence 16.b Non-discriminatory policies

Table (1): The Culture|2030 Indicators Framework and their correspondence to SDGs.

In contrast to CDIS, the Culture|2030 Indicators framework shows direct linkages between its indicators and the targets of SDGs. This means that the indicators within the four dimensions of culture, can serve as standards upon which the satisfaction of SDGs can be measured. Therefore, based on the Culture|2030 Indicators framework, we can conclude that the cultural dimensions can be directly related to the goals of sustainable development.

3. Culture and Development – A Social Network Analysis
3.1.   Social Network Analysis

A **Network** is a collection of actors (e.g. persons, groups, organizations) – represented by nodes – and relations between actors (connections, activities) – represented by links (Wasserman and Faust, 1994). **Social Network Analysis (SNA)** is a distinct framework for studying community dynamics because it is based on assuming the importance of relationships among interacting units. This perspective encompasses theories, models, and applications that are expressed in terms of relational concepts or processes (Tawadros, 2020b).

SNA can also be considered as an empirical tool which can be used to visualize, identify, measure and analyse the ties between people, groups, and organizations (Scott, 1991). In doing so, it uncovers the often-invisible patterns of interaction and enables the underlying structure of relationships to become visible (Cross et. al., 2002).

The earliest roots of SNA can be traced to social psychology at the turn of the 20th century, but particularly what Jacob Moreno and Helen Jennings referred to as sociometry in the 1930s (Moreno & Jennings, 1938). However, contemporary social network analysis received a huge focus in the 1970s with the work of Harrison White and his students (Rice & Yoshioka-Maxwell, 2015).

Moreover, since the development of systems ideas (Katz & Kahn, 1966 and Thompson, 1967), organization theorists have focused on the interaction between social objects (actors) in an organization in producing behavior. Network analysis is one method of conceptualizing systems that captures the intersection of both static and dynamic aspects by focusing on the linkages between social objects over time. Tichy, et. al (1979), for instance, studied the capability of SNA in linking the micro and macro approaches to organizational behavior, addressing organization from a *System* perspective, i.e., a set of objects (e.g. people or groups) joined by a variety of relationships.

Reviewing literature, SNA is widely used as a distinct methodology in studying system dynamics. We can summarize different areas in which SNA proved to be useful as follows:

1. **Social Movements and Opinion Dynamics.** Network linkages proved to be crucial for recruitment in religious, political and social movements. Hence, SNA is very important as a conduit for the spread of social movements. Snow, Zurcher, and Ekland-Olson (1980) studied the differential recruitment and propagation of social movements, addressing questions like: Why are some people rather than others recruited into a particular social movement organization? Why do some movement organizations attract a larger following and grow at a more rapid rate than others? Moreover, SNA has also proved to be very useful in determining opinion leaders in Social Networking Websites such as Facebook and Twitter.

2. **Collective Actions and Aggregate Behavior.** SNA provides a better in-depth understanding of the importance of network structure in participation in collective actions. Siegel (2009) studied the effect of structural variables and relationships among individuals on the emergence of "Collective Action", addressing questions like: How would the political outcome have been different had the network been different? How much weaker would the incentive to engage in violence have been for members of the global Salafi Jihad had existing cliques been weaker? This in turn helps scholars in this field to understand the determinants of aggregate outcomes or behaviors. The *structure* of networks among individuals (actors) in a specific community significantly alters the aggregate behavior in this community. Structure here refers to both; the pattern of connections (ties) and the way in which individuals are distributed (positions).

3. **Complex Systems.** Since the development of systems ideas (Katz & Kahn, 1966 and Thompson, 1967), organization theorists have focused on the interaction between social objects (actors) in an organization in producing behavior. SNA is used to conceptualize systems that captures the intersection of both static and dynamic aspects by focusing on the linkages between social objects over time. Tichy, et. al (1979) studied the

capability of SNA in linking the micro and macro approaches to organizational behavior, addressing organization from a *System* perspective, i.e., a set of objects (e.g. people or groups) joined by a variety of relationships. SNA is, then, a useful approach in understanding how micro-behaviors and dynamics can produce the emergence of macro-phenomena. According to Mitchell's (1969) view, a specific set of lies or linkages among any set of persons, together with the characteristics of these ties can be used to interpret the social behavior of the overall community constituted by these persons.

4. **Social Change and Social Influence.** The power of SNA as a distinctive approach lies in its ability to identify the mechanisms of social change. Social change happens through social influence in small as well as large groups, in which SNA has proven to be useful as well. Kleinnijenhuis et al. (2011) for instance used a network analysis of organizational communication in order to study *Social Influence* in *Networks of Practice* (NoP) addressing issues like: social identity theory, persuasion and attitude change, minority influence, group influence, etc. *Social Influence* refers to "a change in a person's cognition, attitude, or behavior, which has its origin in another person or group" (Raven, 1965, p. 371). Social Influence occur "when an actor adapts his behavior, attitude, or belief to the behaviors, attitudes, or beliefs of other actors in the social system" (Leenders, 2002, p. 26). An individual X is *socially influenced* by a behavior of another individual Y in a specific community if and only if Y is within the *network* of X, i.e., X and Y are linked or tied with any type of relationship (liking, friendship, kinship, marriage, business, trade, etc.).

5. **Organized Crime and Terrorism.** SNA offers an extremely useful tool for studying organized crimes in general, and particularly terror networks. Since the 1930s, researchers have identified the significance of network structure in facilitating criminal interactions (Lauchs, et. al., 2012). SNA is used as a methodology to analyze organized crime in many studies,

among which: Sutherland (1937), Block (1994), McIllwain (1999), Bruinsma and Bernasco (2004), Kleemans and de Poot (2008) and Heber (2009). SNA is also terrorism (e.g., Arquilla & Ronfeldt, 2001; Krebs, 2002; Yang et al., 2006; and Tawadros, 2020a). Through mapping and visualization of terror networks, it is possible now to identify membership links, information flow, money movements, subgroups and key players within terror networks. Network analysis is mainly used in counterterrorism studies by identifying the strengths of the network to target them, and its vulnerabilities to penetrate them. Among these studies, we find Moon et al. (2007), Clauset et al. (2008), Everton (2009), Bakker et al. (2012), and Lauchs et al. (2012).

6. **Diffusion of Innovations.** *Network Topology* has been proven to be a basic determinant of the diffusion of innovations within organizations or groups in terms of different diffusion parameters e.g., innovation potential, imitation potential, diffusion rate (speed) and adoption size. Many scholars used SNA to study the impact of network structure on the diffusion of innovations as well. The history of network models of diffusion (Liu, Madhavan, and Sudharshan, 2005): Opinion leadership (Coleman et al., 1966), Strength of weak ties (Granovetter, 1973), Communication network (Rogers and Kincaid, 1981), and Structural equivalence (Burt, 1987).

7. **Internet Studies and Text Analysis.** SNA have been used in retrieving meaningful information from social media platforms (Mincer and Niewiadomska-Szynkiewicz, 2012), as well as e-commerce websites (Kumar and Zhang, 2007). In addition, SNA can be used in text analysis of internet sites through network extraction from text. Network extraction depends on the assumption that texts can be coded and analyzed as networks of concepts (Tawadros and Soliman, 2019). Extracting network from texts involves the conversion of words into concepts (nodes), and the creation of linkages between pairs of those concepts (links) (Carley, 2003).

Based on this summarized literature review, we can highlight the importance of using SNA as a computational and empirical methodology to study the interlinkages between cultural dimensions and SDGs. The main aim behind using SNA in this research is to understand the structure of these linkages, the most central goals among the SDGs in which culture plays a central role, and the most central dimensions of culture in SDGs.

3.2. A Social Network Analysis to Culture|2030 Indicators and SDGs

In this section, we propose a method to apply SNA in studying the interlinkages between cultural dimensions and sustainable development goals through cultural indicators and SDGs' targets. We will use the four dimensions of Culture|2030 previously discussed, namely:

- D1. Environment and Resilience.
- D2. Prosperity and Livelihoods.
- D3. Knowledge and Skills.
- D4. Inclusion and Participation.

Referring back to Table (1), we can extract the linkages between these four dimensions and the SDGs as shown in Table (2) where:

- **Source** column represents cultural dimensions,
- **Target** column represents SDGs, and
- **Weight** column represents the number of targets within the SDG in the second column that are affected by the indicators of the cultural dimension in the first column.

Using Gephi 0.9.2 Software for network analysis and visualization[1], we can:

(a) Visualize the linkages between the dimensions and the goals, this is shown in Figure (3).

(b) Calculate some Network metrics and measurements that can be further used for research purposes, this is shown in Table (3).

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[1] Gephi is an open-source visualization and exploration software for all kinds of networks. It is available online at: https://gephi.org/

Source	Target	Weight	Source	Target	Weight
D1	G2	1	D2	G11	1
D1	G6	1	D3	G4	2
D1	G9	1	D3	G8	1
D1	G11	2	D3	G9	1
D1	G12	1	D3	G12	1
D1	G13	1	D3	G13	1
D1	G14	1	D4	G9	2
D1	G15	1	D4	G10	1
D1	G16	1	D4	G11	1
D2	G8	3	D4	G16	4
D2	G10	1			

Table (2): The extracted links between cultural dimensions and SDGs.

The resulting extracted network, shown in Figure (3), is a **Directed Weighted Social Network**, where:
-   The nodes of the network represent cultural dimensions and SDG goals.
-   The ties or links between two nodes has a <u>direction</u> that originates from a cultural dimension (D_i), i = 1, … 4, and points to a goal (G_j), j = 1, … 17.
-   Each tie or link has a weight that is visually represented as the line thickness of the link.
-   The size of the node is directly proportional to its centrality using in-degree centrality measure. Centrality measures this will be discussed in more details in the following paragraphs.

Centrality Measures in SNA are mathematical metrics calculated from the network data and refer to the relative importance of each node in the network in terms of its location in the network and how it can control or influence flow within this network. The higher the value of a centrality measure for a specific node, the more central or important this node is. Centrality measures taken into consideration in this research are:
-   **Indegree Centrality:** the number of links pointing to a node.

- **Outdegree Centrality:** the number of links originating from a node.
- **Weighted Indegree Centrality:** the weighted sum of links pointing to a node.
- **Weighted Outdegree Centrality:** the weighted sum of links originating from a node.
- **Eigenvector Centrality:** the degree to which an actor is connected to highly connected peers, and it takes all direct and indirect network paths from the focal actor into account (Torfason and Kitts, 2011).

Our focus will be on weighted indegree, weighted outdegree, and eigenvector centrality measures. This is because the links of our network are weighted by the number of targets each dimension satisfy for a given goal. Therefore, the weighted indegree and outdegree centrality measures will be more realistic than just counting the number of links between goals and dimensions.

Examining the results of network analysis, as shown in Table (3), we notice that:
- The highest node in weighted indegree centrality is G16, and then nodes G8, G9, G11. This means that the SDGs that are most influenced by culture are Goals 8, 9, 11, and 16.
- The highest node in weighted outdegree centrality is D1 and followed by node D4. This means that dimensions 1 and 4 are the most influencing cultural dimension in SDGs.
- The highest nodes in eigenvector centrality are G9 and G11. This means that goals 9 and 11 are not only influenced by cultural dimensions but also, they are related to or linked with the most influencing nodes.

Table (4) shows elaborates more on the results we reached from the pre-discussed centrality measures. We will discuss the four most influenced goals in Table (4) in more details in the following paragraphs.
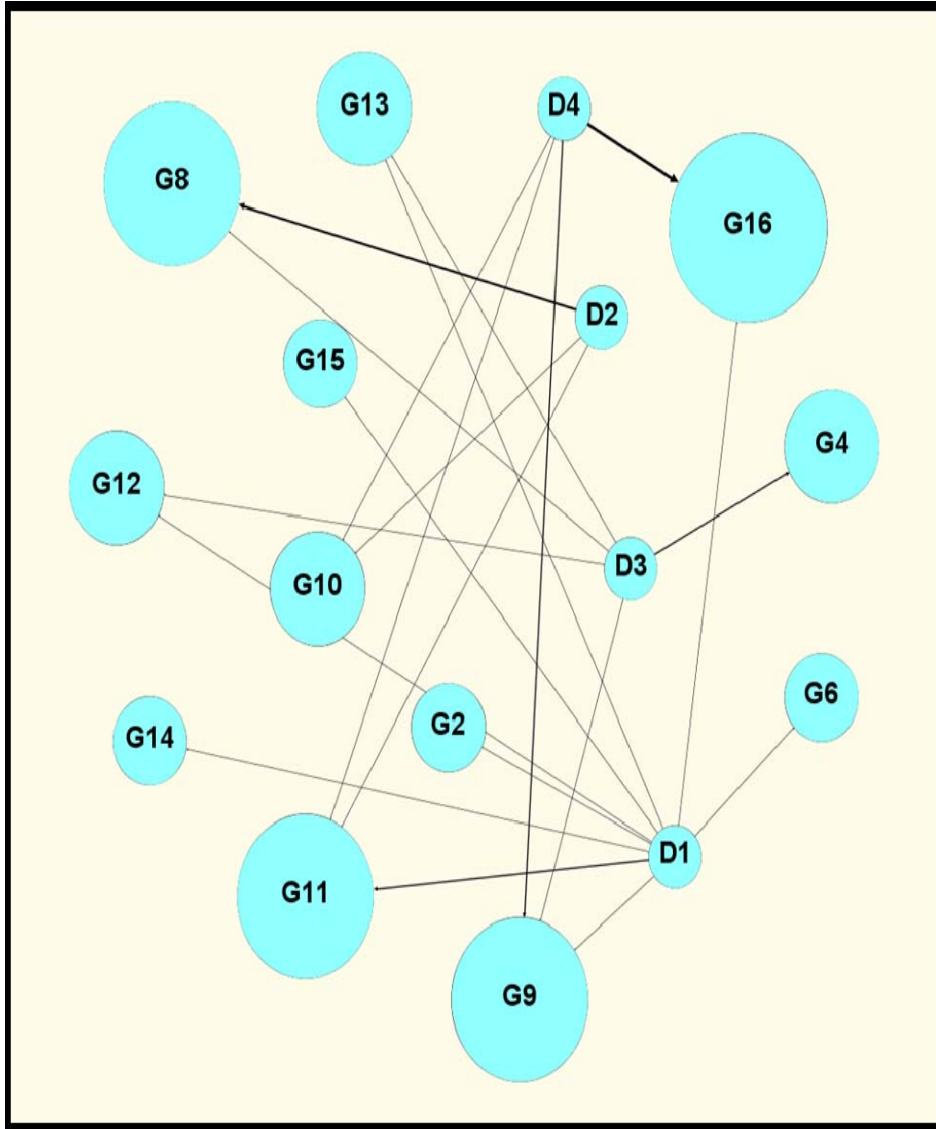
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Figure (3): The extracted Dimensions / Goals Network

ID	Indegree	Outdegree	Weighted Indegree	Weighted Outdegree	Eigen-Centrality
D1	0	9	0	10	0
D2	0	3	0	5	0
D3	0	5	0	6	0
D4	0	4	0	8	0
G2	1	0	1	0	0.333333
G4	1	0	2	0	0.333333
G6	1	0	1	0	0.333333
G8	2	0	4	0	0.666667
G9	3	0	4	0	1
G10	2	0	2	0	0.666667
G11	3	0	4	0	1
G12	2	0	2	0	0.666667
G13	2	0	2	0	0.666667
G14	1	0	1	0	0.333333
G15	1	0	1	0	0.333333
G16	2	0	5	0	0.666667

Table (3): The results of Network Analysis.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. This goal involves the achievement of sustained per capita economic growth with higher levels of economic productivity. Culture is relevant to this goal, since promoting cultural diversity helps in exploring the potential of this diversity and creativity to create inclusive and fair employment. In addition, this also helps in making effective tourism strategies that contextualize cultural identities, activities and assets. A long-term vision of promoting cultural diversity, preserving cultural and natural heritage and promoting freedom of cultural expressions fosters economic opportunities for artists and creative businesses and strengthens the country as a tourism destination.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Culture is relevant

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to this goal, since ensuring that quality and resilient cultural infrastructures exist in cities helps in providing citizens with affordable and equitable opportunities to participate. In addition, involving artists in research, development and innovation in a wide range of industrial areas helps in encouraging innovation.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Culture is relevant to this goal, since protecting and safeguarding tangible and intangible cultural heritage has a big role in enhancing inclusive and sustainable urbanization and improving urban resilience in the context of disasters. In addition, culture may play a vital role in the renovation of historic centers and in neighborhood, district and regional development plans. Public spaces can then be viewed as key resources for cultural interaction and participation.

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels. This goal focuses on the reduction of all forms of violence, the ending of all forms of abuse, exploitation and corruption and the promotion of the rule of law and justice for all. Culture is relevant to this goal since fostering access to information in cultural facilities, including libraries and knowledge centers, fostering citizens' participation in cultural policies and programs and promoting cultural diversity play a big role in the alleviation of violence and the promotion of peace. In addition, culture plays a big role in local conflict resolution strategies and in fostering transparency, accountability and evaluative public services.

Strongest Influencers	Most Influenced
Dimension 1: Environment and Resilience. **Dimension 4:** Inclusion and Participation.	**Goal 16:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
	Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. **Goal 11:** Make cities and human settlements inclusive, safe, resilient and sustainable.
	Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Table (4): The most powerful relationships between culture and development

Therefore, we can say that safeguarding cultural heritage, incorporating traditional knowledge into culturally sensitive planning, promoting all people the right to participate in cultural life, and promoting freedom of cultural expression can be viewed as necessary conditions for promoting peaceful, inclusive, innovative, resilient, economically growing and productive societies.

4. Conclusion and Further Research
The UN 2030 Agenda and the Sustainable Development Goals (SDGs) are comprehensive and holistic in nature covering economic, social, and environmental dimensions of development. Individual countries, in turn, face the challenges of translating this agenda into feasible and realistic development plans, as well as identifying comprehensive policies that reflect their conditions and priorities.
This study builds on the idea that culture is a crucial element in the development process, and it is also an essential enabler for the SDGs to be implemented. The development path depends on culture and intersects with it in many forms. This path dependency needs to be

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considered as countries prioritize their SDG policies. Furthermore, the awareness of development path dependency on cultural dimension will be important in order achieve an efficient and successful prioritization of the SDG agenda in each country. However, the cultural dimension is still not sufficiently and consistently incorporated in development strategies, policies and programs.

In order to address this shortcoming, our study attempted to answer two key questions. First: what are the reasons behind the problematic nature of linking development with culture? Second: how could culture be integrated in the main development process through SDGs?

Attempting to answer the first question, the researchers conducted a brief review and analysis of the international efforts exerted to link development with culture since the 1960s. The findings of this review and analysis showed that there are two main <u>limitations</u> that may explain the problematic nature of linking development with culture.

The first limitation is a **Conceptual Limitation**, since "Culture" is, theoretically, a controversial concept. It is a concept that could refer to almost everything, so it is difficult to specify what it exactly means. The second limitation is a **Data Limitation**, since culture is still difficult to be measured unlike other economic and social variables due to its flexibility. Countries need to consider data limitations, since the cultural indicators do not usually have measured values on a yearly basis or even on a regular basis, as is the case with CDIS for example.

Significant efforts had been exerted by international organizations, specially by the United Nations Educational, Scientific and Cultural Organization (UNESCO), in order to overcome these two limitations. These efforts focused on recognizing culture as an important dimension in and for human development and integrating it in the development processes. These efforts have succeeded in making culture more recognized by scholars working in the development field. However, they didn't succeed to systematically incorporate it in the development processes including the MDGs and then the SDGs.

Nevertheless, thoughts and models about how to integrate culture in the SDGs were constructed and disseminated. The UNESCO's

Culture|2030 Indicators, for instance, is a framework designed to incorporate four thematic cultural indicators in sustainable development, namely: environment and resilience, prosperity and livelihoods, knowledge and skills, and inclusion and participation.

Attempting to answer the second question, how culture could be incorporated in the SDGs, the researchers proposed a computational model to incorporate culture in the SDGs using Social Network Analysis (SNA) methodology. In this study, the researchers showed that SNA is a feasible tool to monitor the linkages between the UNESCO's Culture|2030 Indicators and the SDGs' targets.

Based on a computational SNA, the identified interlinkages between the four dimensions of culture and the seventeen goals are more obvious, and centrality measures showed us the strongest influencing cultural dimensions, and the most influenced goals.

The main result of the computational SNA showed that: Incorporating cultural diversity, preserving cultural and natural heritage, and promoting freedom of culture expression proved to be crucial to the development process, and have a great influence on satisfying goal 16 in the first place, and then goals 8, 9 and 11.

In other words, countries will not be able to reach peaceful, inclusive and productive societies without supporting the coexistence and inclusion of the cultures of all cultural groups inside these societies, in terms of both preserving their cultural heritage, and promoting them the right to freely express their cultures.

Culture is greatly recognized as one of the human development pillars. Yet, it has many interpretations and dimensions which make it theoretically and ideologically controversial. Practically, one of the main challenges in the development fields is how to incorporate culture in development processes. This emphasizes the need for more theoretical and action-oriented research to develop and provide models that could be used by decision-makers and practitioners.

Further research is needed in order to overcome the data limitations previously discussed. In order to quantitatively assess the interlinkages between culture and development, we need a regular measure for both cultural indicators and SDGs' indicators.

Unfortunately, this data is missing for many developing countries. Hence, it is highly recommended that scholars interested in culture and development fields shall start the task of measuring these indicators in cooperation with statistics national authority in each country, so as to be able to conduct more in-depth research in the interlinkages specific to each country.

References

1- Arquilla, J. and Ronfeldt, D. (2001), Networks and netwars: the future of terror, Crime, and Militancy، RAND, Santa Monica.

2- Bakker, R.M., Raab, J. and Milward, H.B. (2012), "A preliminary theory of dark network resilience", Journal of Policy Analysis and Management, vol. 31, no. 1, pp. 33-62.

3- Block, A. (1994), East Side-West Side: Organizing crime in New York City [1930-1950], Transaction, New Jersey.

4- Bruinsma, G., Bernasco, W. (2004), "Criminal groups and transnational illegal markets", Crime, Law and Social Change, vol. 41, pp. 79-94.

5- Burt, R.S. (1987), "Social contagion and innovation: cohesion versus structural equivalence", American Journal of Sociology, vol. 92, pp. 1287-335.

6- Carley, K.M. (2003), Dynamic Network Analysis for Counterterrorism, National Academies Press, Pittsburgh pp. 169-187.

7- Clauset, A., Moore, C. and Newman, M. (2008), "Hierarchical structure and the prediction of missing links in networks", Nature, Vol. 453, No. 7191, pp. 98-101.

8- Coleman, J.S., Katz, E., Menzel, H. (1966), *Medical Innovation: A Diffusion Study*, Bobbs Merrill, New York.

9- Cross, R., Borgatti, S.P., Parker., A. (2002), "Making Invisible Work Visible: Using Social Network Analysis to Support Strategic Collaboration". California Management Review, vol. 44, no. 2, pp. 25-46.

10- Everton, S.F. (2009), "Network topography, key players and terrorist networks", Connections, vol. 1, no. 32, pp. 12-19.

11- Granovetter, M. (1973). "The strength of weak ties", American Journal of Sociology, vol. 78, pp. 1360-1380.

12- Heber, A. (2009), "The networks of drug offenders", Trends in Organized Crime, vol. 12, pp. 1-20.

13- Hettne, B. (2009), Thinking About Development (Development Matters), ZED Books.

14- Katz, D., Kahn, R.L. (1966), The social psychology of organizations, Wiley, New York.

15- Kleemans, E.R., De-Poot, C.J. (2008), "Criminal Careers in Organized Crime and Social Opportunity Structure", European Journal of Criminology, vol. 5, pp. 69-98.

16- Kleinnijenhuis, J., Hooff, B., Utz, S., Vermeulen, I., Huysman, M. (2011), "Social Influence in Networks of Practice: An Analysis of Organizational Communication Content", Communication Research, vol. 38, no. 5, pp. 587-612.

17- Krebs, V. (2002), "Uncloaking terrorist networks", First Monday, Vol. 7, No. 4.

18- Kumar, P. and Zhang, K. (2007), "Social network analysis of online marketplaces", Paper Presented at IEEE International Conference on E-Business Engineering (ICEBE'07), IEEE, Hong Kong, pp. 363-367.

19- Lauchs, M., Keast, R.L, Le, V. (2012), "Social Network Analysis of Terrorist Networks: Can it add value?", Pakistan Journal of Criminology, vol. 3, no. 3, pp. 21-32.

20- Lauchs, M., Keast, R.L. and Le, V. (2012), "Social network analysis of terrorist networks: can it add value?", Pakistan Journal of Criminology, vol. 3, no. 3, pp. 21-32.

21- Leenders, R. (2002), "Modeling Social Influence through Network Autocorrelation: Constructing the Weight Matrix", Social Networks, vol. 24, pp. 21–47.

22- Liu, B.S., Madhavan, R., Sudharshan, D. (2005), "DiffuNet: The impact of network structure on diffusion of innovation", European Journal of Innovation Management, vol. 8, no. 2, pp. 240-262

23- Marana, M. (2010), "Culture and Development, Evaluation prospects", UNESCO ETXEA, Working paper No. (1), Bilbao, Spain, available at: https://www.unescoetxea.org/dokumentuak/Culture_Development.pdf

24- McIllwain, J.S. (1999), "Organized crime: A social network approach", Crime, Law and Social Change, vol. 32, pp. 301-323.

25- Mincer, M. and Niewiadomska-Szynkiewicz, E. (2012), "Application of social network analysis to the investigation of interpersonal connections",

Journal of Telecommunications and Information Technology, Vol. 2, pp. 81-89.

26‑ Mitchell, J.C. (1969), Social Networks in Urban Situations, Manchester University Press, Manchester.

27‑ Moon, A., Carley, K.M. "Vulnerability assessment on adversarial organization: Unifying command and control structure analysis and social network analysis", EEE Intelligent Systems, Special issue on Special issue on Social Computing, vol. 22, no. 5, pp. 40–49, 2007

28‑ Moreno, J.L., Jennings, H.H. (1938), "Statistics of social configurations", Sociometry, vol. 1, pp. 342-374.

29‑ Raven, B. H. (1965), Social Influence and Power. In I.D. Steiner & M. Fishbein (Eds.), Current studies in social psychology, pp. 371–382. New York: Holt, Rinehart, Winston.

30‑ Records of the General Conference, 31st session, (2001), v.1: Resolutions, Paris, 15 October to 3 November 2001, available at:
https://unesdoc.unesco.org/ark:/48223/pf0000124687

31‑ Rice, W.E., Yoshioka-Maxwell, A. (2015), "Social Network Analysis as a Toolkit for the Science of Social", Journal of the Society for Social Work and Research, vol. 6, no. 3, pp. 369-383.

32‑ Rogers, E.M., Kincaid, D.L. (1981), Communication Networks: Toward a New Paradigm for Research, Free Press, New York, USA.

33‑ Scott, J. (1991), *Social Network Analysis: A Handbook*. Sage Publications, London, UK.

34‑ Scott, J. (1991), *Social Network Analysis: A Handbook*. Sage Publications, London, UK.
Sempere, A.M. (2012), "The Reaction between Culture and Development in the present context", Euro-Americano, available at:
http://www.campuseuroamericano.org/pdf/en/ENG_Relations_Culture_Development_A_Martinell.pdf

35‑ Seymour-Smith, C. (1986), Palgrave Dictionary of Anthropology, Palgrave.

36‑ Siegel, D.A. (2009), Social Networks and Collective Action, American Journal of Political Science, vol. 53, no. 1, pp. 122-138.

37‑ Snow, D.A., Zurcher, L.A., Ekland-Olson, S. (1980), "Social Networks and Social Movements: A Microstructural Approach to Differential Recruitment", American Sociological Review, vol. 45, no. 5, pp. 787 – 801.

38− Sutherland, E. (1937), *The Professional Thief by a Professional Thief*, University of Chicago Press, Chicago.

39− Tawadros, A.S.N. (2012), "Cultures Coevolution and the Emergence of Cooperation: A Computational Approach", Ph.D. Thesis, Faculty of Economics and Political Science, Cairo University, Egypt.

40− Tawadros, A.S.N. (2020a), "Mapping Terrorist Groups using Network Analysis: Egypt Case Study", Journal of Humanities and Applied Social Sciences (JHASS), Vol. 1, No. 3, DOI 10.1108/JHASS-09-2019-0050.

41− Tawadros, A.S.N. (2020b), "A Network Analysis Approach to the Diffusion of Tolerance Memes", Wadi El-Nile Journal for Humanitarian and Social Studies and Research, Vol. ahead-of-printing (April 2020).

42− Tawadros, A.S.N., Soliman, S. (2019), "Identifying key actors in an international crisis using dynamic network analysis: Syrian crisis case study", Journal of Humanities and Applied Social Sciences (JHASS), Vol. 1, No. 2, DOI 10.1108/JHASS-08-2019-0022.

43− Thompson, J.D. (1967), Organizations in Action: Social Science Bases of Administrative Theory, Mc-Graw Hill, New York, USA.

44− Tichy, N.M., Tushman, M.L., Fombrun, C. (1979), "Social Network Analysis for Organizations", The Academy of Management Review, vol. 4, no. 4, pp. 509-517.

45− Torfason, M.T., Kitts, J.A. (2011), "Prominence", in Barnett, G.A. (Ed.), Encyclopedia of Social Networks, SAGE Publications, Thousand Oaks, CA, Vol. 1, pp. 721-721.

46− United Nations Development Programme (UNDP), (2004), "Human Development Report", available at: https://doi.org/10.18356/68b83600-en

47− United Nations Educational, Scientific and Cultural Organization (UNESCO). (2014), "Culture for Development Indicators – Methodology Manual", UNESCO, France, Paris.

48− United Nations Educational, Scientific and Cultural Organization (UNESCO), (1966), "Declaration of the Principles of International Cultural Cooperation", UNESCO, available at: http://portal.unesco.org/en/ev.phpURL_ID=13147&URL_DO=DO_TOPIC&URL_SECTION=201.html

49− http://ocpa.irmo.hr/resources/docs/Report_Venice_CulPol-en.pdf

50- United Nations Educational, Scientific and Cultural Organization (UNESCO), (1982), "World Conference on Cultural Policies – MONDIACULT", UNESCO, México, available at: http://unesdoc.unesco.org/images/0005/000546/054668MB.pdf

51- United Nations Educational, Scientific and Cultural Organization (UNESCO), (1990), "World Decade for Cultural Development, 1988-1997 Plan of Action", UNESCO, available at: http://unesdoc.unesco.org/images/0008/000852/085291eb.pdf

52- United Nations Educational, Scientific and Cultural Organization (UNESCO), Pérez de Cuellar, J. (dir), (1996), "Our Creative Diversity. Report of the World Commission on Culture and Development", UNESCO, available at: http://unesdoc.unesco.org/images/0010/001055/105586e.pdf

53- United Nations Educational, Scientific and Cultural Organization (UNESCO), (2001), "Universal Declaration on Cultural Development", UNESCO, available at: http://portal.unesco.org/en/ev.phpURL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html

54- United Nations Educational, Scientific and Cultural Organization (UNESCO), (2005), "The 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions", UNESCO, available at: https://en.unesco.org/creativity/sites/creativity/files/passeportconvention2005-web2.pdf

55- United Nations Educational, Scientific and Cultural Organization (UNESCO), (2014a), "Action Plan of the International Decade for the Rapprochement of Cultures (2013-2022)", UNESCO – 37 C/Resolution 1 (II).

56- United Nations Educational, Scientific and Cultural Organization (UNESCO), (2014b), "Culture for Development Indicators: Methodology Manual", UNESCO, Paris, France.

57- United Nations Educational, Scientific and Cultural Organization (UNESCO), (2019), "Culture | 2030 indicators", UNESCO, Paris, France, available at: https://unesdoc.unesco.org/ark:/48223/pf0000371562

58- United Nations Human Rights Office of the High Commissioner (OHCHR), (1993), "Vienna Declaration and Programme of Action", available at: https://www.ohchr.org/en/professionalinterest/pages/vienna.aspx.

40

59- Wasserman, S., Faust, K. (1994), Social Network Analysis: Methods and Applications. Cambridge University Press, UK.

60- Yang, C., Liu, N. and Sageman, M. (2006), "Analyzing the terrorist social networks with visualization tools", IEEE International Conference on Intelligence and Security Informatics, pp. 331-342.

دمج الأبعاد الثقافية فى أهداف التنمية المستدامة

أميرة تاضروس ويسرى مصطفى

تعد الثقافة عاملًا حاسمًا فى التنمية البشرية، الرفاهية، الديمقراطية، السلام، والأمن. ولكن وضع الثقافة فى عمليات التنمية لا يزال محل جدال. نظريًا عرفت الثقافة على نطاق واسع كجزء لا يتجزأ من التنمية الاجتماعية/ الاقتصادية، لكن عمليًا لم تدمج الثقافة بشكل كاف فى عمليات التنمية، وفى المقابل لا تزال متغير لا يمكن قياسه. ويهدف هذا البحث إلى معالجة الثقافة فى علاقتها بالتنمية، وذلك من منظورين، منظور الملاحظة (المشاهدة) والتحليل، والمنظور الحسابى. تحليليًا، حاول الباحثون الإجابة على سؤال محورى مفاده، لماذا يمثل التكامل الثقافى مشكلة فى عمليات التنمية؟ وفى هذا الصدد تولى الباحثون إجراء مراجعة للمسار نحو دمج الثقافة فى التنمية ووضعها على جدول أعمال المجتمع الدولى من عام ١٩٦٠ وحتى الآن. حسابيًا، حاول الباحثون الإجابة على سؤال محورى آخر، وهو كيف يمكن إدماج الثقافة فى أهداف التنمية المستدامة.

وقد اقترح الباحثون تحليل الشبكات الاجتماعية كأداة عملية لقياس الرابطة بين المؤشرات الثقافية ومؤشرات أهداف التنمية المستدامة لإلقاء الضوء على أهداف التنمية المستدامة الأكثر تأثرًا بالثقافة.