Sustainable Development Goals (SDGs) Humanitarian Aid and Global Governance: An Analysis

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Abstract: *The research paper entitled* ***'Sustainable Development Goals(SDGs) Humanitarian Aid and Global Governance: An Analysis'*** *is an attempt to analyze the relationships existing between SDGs, Global Peace and Humanitarian Aid in order to assess and comprehend to delineate a comprehensive global agenda to achieve the Sustainable Development Goals(SDGs) slated by the United Nations by the turn of 2030. The paper makes an attempt to study the interactions between SDGs across economies evolved over time. The issues relating to synergies and trade-offs between the SDGs have also been analyzed in the research study. The pledge has been that all the members nations which are signatory to the United Nations need to plan, devise, coordinate and make sincere efforts to achieve the implementation of SDGs by the turn of 2030 slated by UN. Research studies have shown that there is an urgent felt need of analyzing the trends, behavioral relationships amongst and across the SDGs to assess the synergies and trade-offs existing between the SDGs to rectify the same for smooth implementation of the 2030 Agenda on SDGs. The aspect-wise review of literature has been dealt with in detail in the research study. The focus of the study has also been on certain key issues and concepts such as SDGs, Peace, Humanitarian Aid, SDG Index and Dashboards on SDG indicators, SDG interactions using the SDG Index and Dashboards, changes in synergies between SDGs, changes in trade-offs between SDGs etc., The other aspects dealt within the research study include interactions between projected SDGs and HICs(High Income Countries), MICs(Middle Income Countries) and LICs(Low Income Countries), behavior of SDGs trend etc.,*

The study has identified and assessed the relationships among the macro variables relating to all the 17 SDGs. The study has covered aspects such as reshaping global governance for sustainability, governance coherence, development goals and sustainable development, democratic governance and democratic funding, UN 2020 democratic global governance, linkage of 2030 Agenda for SDGs with the agenda for humanity, humanitarian SDGs by the SDSN, perception of global trade unions on SDGs, social dialogue etc.,

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The implications of the research study are that further research needs to be undertaken to reverse the trends of these trade-offs between SDGs and to identify effective solutions to develop the synergies between the SDGs in order to analyze the trends and behavior of these SDGs for effective implementation of the 2030 Agenda on SDGs slated by UN.

Keywords: *SDGs, Humanitarian Aid, SDG Index, SDG Dashboard, UN 2020 democratic global governance, Sustainable Development Goals(SDGs) Humanitarian Aid and Global Governance: An Analysis*

1. Introduction

The Agenda 2030 with its 17 Sustainable Development Goals (SDGs) provides the framework that all 193 United Nations (UN) member states have pledged to achieve the successful implementation of SDGs (**United Nations, 2015**). Unlike previous development agendas that put an emphasis on economic growth, the SDGs are a universal framework that contains many potentially diverging policy goals in the economic, social, and environmental sphere, while some goals are thought to be mutually supportive. The achievement of the agenda crucially depends on whether humankind will be able to maximize synergies and resolve existing trade-offs between the SDGs. There is a need of analysis of future interactions for projected SDG trends until 2030 within and between goals, and to analyze how trade-offs and synergies have evolved in the recent past globally. For certain goals, there are positive developments with notable synergies in projections, especially for SDGs 1, 3, 7, 8 and 9. Poverty alleviation and strengthening the economy, rooted in innovation, and modern infrastructure, therefore continue to be the basis upon which many of the other SDGs can be achieved. However, especially, SDGs 11, 13, 14, 16 and 17 will continue to have notable trade-offs, as well as non-associations with the other goals in the future, which emphasizes the need to foster innovations and policies that can make our cities and communities more sustainable, as well as strengthen institutions and spur climate action. There are examples of a successful transformation of trade-offs into synergies that should be emulated in other areas to create a virtuous cycle of SDG progress. The alarming inability to overcome certain persistent trade-offs that has been found and indeed the deterioration for some SDGs, can seriously threaten the achievement of the 2030 Agenda.

2. Review of Literature

To shed light onto this important topic, research have begun to examine the inter-linkages between the 17 goals (**Lu et al., 2015; Schmidt et al., 2015; Pradhan, 2019; Breuer et al., 2019**). Previous studies prior to the SDGs had already looked at inter-linkages, for instance, between climate change adaptation and mitigation response

(**Smith and Olesen, 2010**); poverty alleviation (**Mathy and Blanchard, 2016**); meeting the Millennium Development Goals (MDGs) (**Bue and Klasen, 2013**); and balancing economic development, environmental sustainability, and social inclusion for human well-being (**Ibisch et al., 2016; Sachs, 2012**). With the SDGs, however, a new level of opportunities for classifying interactions has emerged so that these issues can be examined more systematically in the future (**Costanza et al., 2016; Rickels et al., 2016; Nilsson et al., 2016**). The first complete quantification of synergies and trade-offs within and across the SDGs was provided by **Pradhan et al. (2017).** It was found that SDG 1 (*No poverty*) has synergetic relationship with many goals, while SDG 12 (***Responsible consumption and production***) is associated with trade-offs, especially regarding economic progress. A similar pattern was found in a more recent study by **Lusseau and Mancini (2019)** who reported that "limiting climate change, reducing inequalities and responsible consumption are key hurdles to achieving 2030 goals across countries while poverty alleviation and reducing inequalities will have compound positive effects on all SDGs". Modeling three alternative policy pathways (technology, lifestyle change, and decentralized governance) for achieving SDG targets, these alternative development paths lead to synergies that enhance target achievement, while others lead to trade-offs (**Moyer and Bohl, 2019**). Additional studies have highlighted selected aspects of SDG interactions, such as between energy (SDG 7) and other SDGs (**Nerini et al., 2018**), or between selected social and environmental goals (**Scherer et al., 2018**), or with a case study to facilitate the prioritization of SDG targets for 22 countries in the Arab region (**Allen et al., 2019**), or at the local level in Sweden for selected SDG interactions (**Engström et al., 2019**), or relating urban scaling with SDG 11 (***Sustainable cities and communities***) indicators (**Akuraju et al., 2020**).

Although such studies of a snapshot in time on interactions are helpful to assess the current state of the challenge, in the end the world community's ability to achieve Agenda 2030 will crucially depend on whether over time trade-offs across the entire spectrum of the SDGs can be minimized and synergies can be maximized. Therefore, this research study examines whether countries are currently good enough at dealing with these inter-linkages based on extrapolated developments in the recent past in relation to the level needed for SDG achievement by 2030. The following pertinent questions are posed viz;

i) How have interactions within and between the 17 SDGs across countries evolved over time?
ii) Are we successful in moving from trade-offs to synergies at the rate that is necessary to achieve the goals?

We analyze how trade-offs and synergies between the goals have developed between 2010 and 2018. Most importantly, the first analysis of future interactions for projected SDG trends until 2030 is provided. The most significant value-added to the literature of the research study is therefore that it fills a gap by being the first analysis to use SDG trends to calculate projected SDG interactions in the future. Given the increased focus in recent years on the need for synergies between economic, social, and environmental progress (in addition to the studies mentioned earlier, (e.g. **Stiglitz et al., 2009, 2018**), the study hypothesize that synergies between these three spheres of progress will occupy a larger portion in the projections of the inter-linkages until 2030 than trade-offs.

3. Research Methodology

The SDG Index and Dashboards database provides globally available data at country level on SDG indicators from 2010 to 2018 (**Sachs et al., 2018**). The research study is unique to the extent that it focuses on 'SDG interactions' using the 'SDG Index and Dashboards' report data which has been described as "the most comprehensive picture of national progress on the SDGs and offers a useful synthesis of what has been achieved so far" (**Nature Sustainability Editorial, 2018**). The database are available and consist of data for 193 countries with up to 111 indicators per country on all 17 SDGs (as of 14 May 2019; detailed information, including the full list of indicators and the raw data used are available from www.sdgindex.org (**Schmidt-Traub et al., 2017** for the methodology). In order to avoid discussions associated with the aggregation of the goals into a single number (**Diaz-Sarachaga et al., 2018**), the aggregated 'SDG Index' score has not been used but only scores for the separate goals.

3.1. Methods Adopted: A Theoretical Approach

The interactions can be classified as synergies (i.e. progress in one goal favors progress in another) or trade-offs (i.e. progress in one goal hinders progress in another). The synergies and trade-offs are examined to the results of a Spearman correlation analysis across all the SDG indicators, accounting for all countries, and the entire time-frame between 2010 and 2018. The research study thereby analyze the main analytical section (section "Interactions between SDGs") up to 136 SDG pairs per year for 9 consecutive years minus 69 missing cases due to data gaps, resulting in a total of 1155 SDG interactions under study.

In a first analysis (section "Interactions within SDGs"), there is examination of interactions within each goal since every SDG is made up of a number of targets that are measured by various indicators. In a second analysis (section "Interactions

between SDGs"), the study then examine the existence of a significant positive and negative correlations in the SDG performance across countries. A series of cross-sectional analyses for the period 2010–2018 could be performed to understand how the SDG interactions have developed from year to year basis. The research study uses correlation coefficient (rho value) ± 0.5 as the threshold to define synergy and trade-off between an indicator pair. An association is considered to have at least moderate relationship when the rho value is greater than 0.5 or less than −0.5 (**Smarandache, 2009**). The development on SDG interactions identified based on maximum change occurred in the shares of synergies, trade-offs, and no relations for SDG pairs between 2010 and 2018. All variables could be re-coded in a consistent way towards SDG progress to avoid false associations, i.e. a positive sign is assigned for indicators with values that would have to increase for attaining the SDGs, and a negative sign in the opposite case. The analysis is therefore applying a similar method as described by **Pradhan et al. (2017)** in so far as examining SDG inter-linkages as synergies (positive correlation) and trade-offs (negative correlation) are concerned. However, in important contrast to the aforementioned situation, one may not investigate SDG interactions within countries longitudinally, but instead carry out cross-sectional investigations across countries on how the global community's ability to manage synergies and trade-offs has evolved over the last nine years, as well as projected SDG trends until 2030. The research study therefore relies and focuses on global cross-sectional country data. An advance of such a global cross-sectional analysis is that it can compare the status of different countries at a given point in time, covering the SDG interactions over the whole range of development spectrum from least developed to developed ones. The longitudinal analysis could cover only the interactions occurred within a country for the period under reference. Moreover, this global cross-sectional analysis could be repeated or made an iterative process for a number of consecutive years. Another novel contribution of this study is therefore to highlight how such global SDG interactions have evolved in the recent years. Finally, by resorting to the SDG Index database for the first time in the research field of SDG interactions, the study focuses on a more comprehensive dataset than was used in **Pradhan et al. (2017).**

In the analytical section i.e. ("Interactions in the projected SDG trends until 2030"), the study provides at the first instance of how inter-linkages between the projected trends in the SDGs would evolve until 2030. Based on SDG country performance from 2010 until 2015, **Sachs et al. (2018)** have calculated linear trajectories for the SDGs with respect to the level that would be required to achieve each goal by 2030. An important feature here is that the development in each country and goal from 2010 to 2015 up until the year 2030 is not only extrapolated but for the final score also set in relation to the level needed for SDG achievement by then. More precisely, all available

data points between the years 2010 and 2015 were gathered by **Sachs et al. (2018)**, and then their development over said period was extrapolated into the future. The linear annual growth rates (i.e. annual percentage improvements) needed to achieve each SDG by 2030 was compared to the actual average annual growth rate in each country and indicator over the period 2010–2015 (with some exceptions). The overall goal trends are an arithmetic average of the rescaled values for all trend indicators under the respective goal. This projection results in a five-point scale variable with the following classification: "decreasing" (country score is moving away from SDG achievement on this indicator), "stagnating" (country score remains stagnant or is improving at a rate below 50 percent of what is needed for SDG achievement by 2030), "moderately increasing" (country score is increasing at a rate above 50 percent but below the rate needed for SDG achievement by 2030, "on track" (score is improving at the rate needed for SDG achievement by 2030), "maintaining goal achievement" (country score is level and remains at or above SDG achievement). More details on the calculation method are available in **Sachs et al. (2018)**. The first analysis of future interactions for this new variable is performed by assessing the synergies and trade-offs between future SDG achievement trends until 2030. Additionally, the study investigates the projected SDG interactions for different income groups (low/middle/high-income countries as categorized by the World Bank) to identify similarities and differences among the income groups regarding future SDG achievement trends. In order to do so, as the first step the five scores are grouped into three categories to reflect their progress towards SDG achievement. If the indicator trend is classified as "decreasing", we assign a value −1. The "stagnating" score trend is given a value 0. Since the rest of the categories ("moderately increasing", "on track", and "maintaining SDG achievement") depict positive developments towards the SDGs, these are assigned a value of 1. The study then analyzes interactions by multiplying these assigned values, leading to the following three outcomes: synergies (1), not-classified (0), and trade-offs (−1). This procedure is first conducted within each SDG using its component sub-indicators, followed by an analysis of interactions between the 17 SDGs.

3.2. Results: Interactions within SDGs

Each SDG in itself is an umbrella term that can be multi-faceted and contain numerous policy goals (**United Nations, 2015**). For example, SDG 7 (***Affordable and clean energy***) calls for "access to affordable, reliable, sustainable, and modern energy for all". This leads to the question of potential trade-offs and synergies also within each SDG, for instance between affordable and sustainable energy, which is addressed first of all, and then the study examines their evolution over time. Mix results are observed on interactions within SDGs for the period under study 2010–2018: (i)

increase in synergies, (ii) growing trade-offs, and (iii) diluting associations within an SDG. The majority of goals show synergies between their component sub-indicators that are relatively stable over time. Interestingly, regarding SDG 1 (***No poverty***), SDG 2 (***Zero hunger***), and SDG 5 (***Gender equality***) they have emerged only as recent SDGs prior to 2016. Before 2016, only weak associations could be observed within these goals. Interactions within SDG 5 have even dipped for a share of trade- offs to synergies between 2016 and 2017. In SDG 2, a mixed share of synergies and trade-offs are observed after 2016, with an increased share of synergies and decreased share of trade-offs. This is a positive sign for the successful implementation of the 2030 Agenda.

Trade-offs are prevalent in particular for SDG 13 (***Climate action***) and SDG 7 (***Affordable and clean energy)***, illustrating the difficulty in aligning even the components within a single goal. In the case of SDG 7 these trade-offs have only emerged in 2017 while before 2017 the components were in a synergetic relationship with each other. Similarly, for SDG 11 (***Sustainable cities and communities***) mostly weak associations are observed before 2017 that have given way to trade-offs in the recent past. These results illustrate that for certain goals new challenges have arisen regarding successful SDG implementation.
Finally, interactions within many SDGs show that the associations among the indicators have been diluted across time, e.g., within SDG 3 (***Good health and well-being***), SDG 4 (***Quality education***), SDG 6 (***Clean water and sanitation***), SDG 8 (***Decent work and economic growth***), SDG 10 (***Reduced inequalities***), SDG 16 (***Peace, justice and strong institutions***), and SDG 17 (***Partnerships for the goals***). In these cases, shares of synergies have mainly been reduced by increases in shares of not-classified associations in these goals. Such diluting associations show the difficulty of maintaining intra-goal synergies, and might also be due to disproportional progress towards the goals and their targets among the countries.

4. Interactions between SDGs

4.1. Changes in synergies between SDGs

The interactions between the SDGs and the examination of 136 SDG pairs over 9 consecutive years, could be classified into changes in (section “Changes in synergies between SDGs”) synergies, (section “Changes in trade-offs between SDGs”) trade-offs, and (section “Changes in strength of associations between SDGs”) strength of associations. Between 2010 and 2015, an increase in a share of synergies for nine SDG pairs is observed. This finding is driven by two mechanisms: (i) a decrease of trade-offs and (ii) a strengthening of associations. For example, the indicators for SDG 2 and SDG 6 shows an increase in synergies mainly due to the breaking away of trade-offs. Both SDGs were also part of the MDGs and many countries have made progress

on these goals during the MDG period, which might contribute to this increase in synergies. Another such positive example can be seen in the interactions between SDG 13 and SDGs 6, 7, 9, 11, and 16. A large share of trade-offs was converted into synergies in the recent years because of efforts to reduce emissions per capita and reconcile climate action with economic and social outcomes. However, many significant trade-offs remain, as well as in fact a long way to go to meet the well below 2 degree global warming target. Meanwhile, a strengthening of positive associations can be observed, for example, between SDGs 5 and 16.

During the same period, the study observes a higher number of 15 SDG pairs with a decrease in a share of synergies compared to the nine SDG pairs with an increase in synergies. In most cases, synergies have decreased due to diluting associations between SDG pairs. For example, SDG pair 3–7, 4–7, and 8–16 have shown almost 100 percent synergies in 2010, which has been reduced to less than 50 percent by 2018. This might be alarming in two senses: (i) positive associations might be vanishing and negative ones might be building up and (ii) countries might be having different paces in attaining the SDGs that can increase inequalities between the countries. Increases in trade-offs with a decrease in synergies can already be observed for several SDG pairs, i.e., 1–16, 3–7, 4–7 and 11–17 respectively.

4.2. Changes in trade-offs between SDGs

Following on a decrease in share of synergies, we observed an increase in the share of trade- offs. In line with the previous sub-section, the number of SDG pairs where trade-offs are increasing (15) is higher than those which are decreasing (9). In most of cases, the mechanism underneath the deterioration is that weak associations among the goals have evolved to trade-offs, e.g. SDG pairs 1–7, 1–15, 8–15 and 15–16 respectively. These trade-offs are particularly alarming and could hinder the achievement of SDGs. Therefore, a deep investigation for the cause for this is needed in future in-depth research. A good news is reducing trade-offs between some SDGs in this decade, mainly between SDG 13 and SDGs 1, 2, 3, 4, and 5. In this case, trade-offs have been converted to either synergies or weak associations.

4.3. Changes in strength of associations between SDGs

Between 2010 and 2018, the study observed an increase in weak association among 36 SDG pairs. Most cases are of weakening synergies among the SDG pairs. For example, SDG pairs 1–2, 1–3, 1–4, 1–6, and 1–10 have mostly synergistic relations (a share of more than 66 percent) in the beginning of the decade, however, the share has decreased up to 40 percent in these goal pairs, sometimes with an

appearance of trade-offs. Nevertheless, weakening of trade-offs has also been observed for some SDG pairs, e.g., 1–14, 2–3, 2–7, 4–5, 2–11, 5–6 and 10–14 respectively.

By contrast, for some SDG interactions the associations, strengthened relations can be observed over time. These are due to an increase in synergies, trade-offs or both. For example, SDG pairs 4–8, 6–9, 6–16 and 7–8 show strengthening synergistic associations, while associations between SDG 15 and SDGs 2, 3, 9, 11, and 17 evolve toward an increase in trade-offs. For the pairs, SDGs 2–8, 2–16, 6–15, 7–15 and 13–15, both share of synergies and trade-offs increase between 2010 and 2018.

5. Interactions in the projected SDG trends until 2030

Looking ahead to the year 2030, the question arises how the performance on the SDGs would evolve over time and in particular the interactions between them. The results from the first interaction analysis of future SDG trends based on a projected trend variable that extrapolates the development in each country and goal from 2010 to 2015 up until the year 2030 and crucially relates it to the level needed for SDG achievement by then (as opposed to a mere extrapolation).

In line with the analysis in the section “Interactions within SDGs”, there is a need to examining the sub-indicators within each SDG, since they are often multi-faceted goals in themselves. With regard to the projected developments until 2030, the largest trade-offs that will need to be solved within the SDGs concern SDGs 2 (Zero hunger), SDGs 11 (Sustainable cities and communities), and SDGs 14 (Life below water). By contrast, the most synergetic elements are to be found within SDGs 3 (Good health), SDGs 7 (Affordable and clean energy), SDGs 8 (Decent work and economic growth), SDGs 9 (Industry, innovation and infrastructure), and SDGs 16 (Peace, justice, and strong institutions). No results could be obtained for goals that have insufficient trend data (SDG 10 and 12), or contain only one trend indicator (SDG 1 and 13), respectively.

The results show the interactions between projected SDG trends until 2030. It turns out that SDG 1 (No poverty) will have the most synergetic relationships with other SDGs on our way to 2030. It is also expected that SDGs 3 (Good health), 7 (Affordable and clean energy), 8 (Decent work and economic growth), and 9 (Industry, innovation and infrastructure) to have significant synergies with the other goals. The strongest mutually reinforcing relationships in the projections are between the following SDG pairs: 1–3, 1–7, 1–8, 1–9 and 8–9. Poverty alleviation and strengthening the economy, rooted in innovation and modern infrastructure, therefore continue to be the basis upon which many of the other SDGs can be achieved. However, trade-offs are still strongest for SDG 11(Sustainable Cities and Communities) followed by SDGs 14 (Life below water), SDGs 16 (Peace, justice, and strong institutions) and SDGs 17

(Partnerships for the goals), and SDGs 13 (Climate action). In particular, the SDG pairs 9–11 and 11–13 constitute large trade-offs. This finding emphasizes the need to invest in research to foster innovations that can make our cities and communities more sustainable, as well as climate-friendly.

6. Interactions between Projected SDGs and HICs(High Income Countries), Middle Income Countries(MICs) and Low Income Countries(LICs)

The study extends the analysis of interactions between the projected SDG trends by examining high-income countries (HICs), middle-income countries (MICs), and low-income countries (LICs) separately. When examining the sub-indicators within each SDG it becomes evident that the overall picture is very similar across all income groups. Countries would face similar challenges with regard to intra-goal consistency regardless of their current stage of development. The only notable differences being concerned with regards to SDGs 6 (Clean water and sanitation) and SDGs 15 (Life on land). For SDG 6, no synergies can be observed for HICs but their share rises for MICs and especially LICs. This finding lends support to the notion that as countries develop, the pressure to provide accessible and yet sustainable water systems will intensify in the future. By contrast, HICs show synergies regarding SDG 15 that are weaker for MICs and almost non-existent for LICs. Biodiversity protection is therefore beginning to pay off in developed regions, while the conditions for Life on land are projected to become more difficult especially in MICs and LICs. This finding sheds a light of urgency onto current public discussions around protecting green spaces, such as the Amazon forest versus economic interests.

7. SDGs Trends by Income Groups

Turning to interactions between projected SDG trends until 2030 by income group, a similar picture is observed overall for all stages of development. It becomes evident, however, that for certain goals the share of projected trade-offs is lower compared to MICs and especially LICs. This is especially true for SDG 6 (Clean water and sanitation) and SDG 13 (Climate action). In other words, the pressure on pursuing climate action as well as clean water and sanitation that is not detrimental for achieving the other goals is likely to rise especially for LICs in the coming years. Unless HICs provide the technical and financial assistance necessary to let LICs benefit from state-of-the-art solutions in this regard, the development gap will rise even more at the expense of the planet including all its inhabitants rich and poor.

8. Towards a Virtuous Cycle of SDG progress

This study poses the following relevant and timely questions viz;

(i) How have interactions within and between the 17 SDGs across countries evolved over time?

(ii) Are we successful in moving from trade-offs to synergies?

8.1. Findings on Behaviour of SDGs Trend

Most importantly, the study has provided the first analysis of inter linkages for projected SDG achievement trends until 2030. For some goals the research study found positive developments with diminishing trade-offs and increasing synergies with other SDGs. This was particularly strong, for example, for SDG interactions between SDG 13 (Climate action) and SDG 9 (Industry, innovation and infrastructure), as well as SDG 13 and SDG 11 (Sustainable cities and communities). Such findings provide some support to the notion that climate-friendly infrastructure is beginning to spread, which not only improves the quality of life in cities and communities but mitigates the dangers of global warming, although the data do not provide evidence of a causal link. Likewise, synergies have begun to emerge in the recent past between SDG 5 (Gender equality) and SDG 16 (Peace and justice, strong institutions) indicating to some extent that as countries are getting better at providing strong institutions, this development may be beneficial to equality between men and women, or vice versa. In any event, such efforts will have to be significantly intensified over the next decade in order to reach the SDGs, and in these particular examples also the 'Paris Climate Accord' and long overdue gender equality, respectively. Nonetheless, these best practices of turning trade-offs into synergies may inform a learning process rooted in more in-depth research to expand the lessons onto other goals with more persistent trade-offs.

For numerous SDG interactions, the synergies are diminishing and trade-offs as well as non-associations are increasing. This worrisome finding was particularly strong for the interactions, for instance, between SDG 7 (***Affordable and clean energy***) and SDG 1 (***No poverty***), as well as SDG 7 and SDG 3 (***Good health and well-being***). This means that as countries manage to lift millions out of poverty and provide much-needed health care, the demands on affordable and clean energy currently rises at a rate that jeopardizes progress regarding the Agenda 2030. Further investments in smart solutions and research on energy supply that can meet these new demands without putting too much pressure on planetary boundaries will be needed in the future.

Comparing the cross-sectional analysis with longitudinal analysis performed by Pradhan et al. (2017), the study obtained similarities and differences. The research

findings are similar in the sense that it also found, overall, a larger share of synergies than trade-offs within and across the goals. Both studies also highlight that eliminating poverty (SDG1) and improving health and well-being (SDG3) will have large synergies with other goals. However, one of the key differences that was observed is that a there is a larger share of not-classified associations in cross-sectional analysis in comparison to the results of the longitudinal analysis by Pradhan et al. A reason for this is that the cross-sectional analysis covers a large number of developing countries. By contrast, the aforementioned longitudinal analysis only has a comparatively narrow range of countries for the investigated period.

The research study provided the first analysis of future interactions between projected SDG trends until 2030, and found that SDG 1 (**No poverty**) will have the most synergetic relationships with other SDGs. In clear terms, this means that eliminating extreme poverty in developing countries and reducing relative poverty in more advanced nations will be a policy strategy that, given limited resources and the need for prioritization, will yield the most significant benefits beyond just this one policy goal of 'No poverty'. Focusing on SDG 1 would therefore be the most promising strategy to ultimately start-off a virtuous cycle of SDG progress. For example, a family that no longer suffers from extreme poverty (SDG1) will be able to lead healthier lives for themselves and others, halting the spread of infectious diseases (SDG 3), contributing to a stronger economy (SDG 8), raising the means of implementation through tax payments (SDG 17) which will in turn enable public investments in infrastructure (SDG 9), which will provide education and other important services (SDG 4). The key challenge for policy makers here will then be to emulate such synergetic relationships with respect to other goals.

Despite those strong synergies, however, the study reveals that all SDG interactions between projected SDG trends until 2030 still contain a significant portion of trade-offs. This outlook into the future gives further reason for concern, and indeed casts a shadow on even most of the positive findings from the analysis of the past and present, for example regarding SDG 13 (***Climate action***). While the study has hypothesized that synergies will occupy a larger portion in the projections of the inter-linkages than trade-offs, the results indicated a nuanced picture with notable synergies for SDGs 1, 3, 7, 8 and 9, while especially SDGs 11, 13, 14, 16 and 17 are likely to have notable trade-offs with the other goals going forward.

Further distinguishing by income group has shown that, overall, countries will face similar challenges in terms of projected trade-offs and synergies across all stages of development. There were notable differences, however, especially to the detriment of LICs in the projected trade-offs for SDGs 6 (***Clean water and sanitation***) and 13 (***Climate action***) being larger than in HICs. This finding provides both an imperative

and incentive for the latter to step up their technical and financial efforts to let LICs benefit from the latest advances which are already being implemented in HICs, e.g. in terms of the growing accessibility and affordability of solar panels in order to reduce emissions. It is very much in the interest of the rich countries themselves given the potentially harmful effects of a lack of climate protection by the growing populations in MICs and LICs on the HICs.

8.2. Results and Data Limitations

The results and the analysis has been limited and constrained by the availability of data, which remains a challenge in SDG monitoring. A number of data gaps persist that prevent the study from analyzing several SDG interactions, and as a result the number of available SDG indicators fluctuate. Further efforts must be made by data providers to close these gaps in the future. This is especially important given the fact that 2015 is the baseline year in which the SDGs were signed into action, and most synergies/trade-offs would materialize with a time lag. The study also emphasize that the method used in the research study, i.e. Spearman's correlation, is useful to establish empirically whether improvements in one SDG go together with improvements (synergy) or deteriorations (trade-off) in another SDG. The method does not, however, allow to determine causation. Where the terms of synergy and trade-off are used in the study, it happens in an understanding that causation is potentially, say for example, from (a) to (b), (b) to (a), or both ways. This approach is in line with other studies on SDG interactions as mentioned and quoted in the study. In order to establish causation in the large number of interactions examined here, comprehensive additional analyses over time are required. Though they go beyond the scope of this study but could be performed in future research in a series of research studies given the complexity of the task.

In future research, the study additionally recommend that the complexity of the SDG system be represented not only by a series of pair-wise interactions but as a network, where both direct and indirect interactions produce synergies and trade-offs. The analysis according to income groups provides promising avenues for future research, and should in fact be complemented in the future by analyses that distinguish not just by income group but also by region or political system, for instance. Nonetheless, it is hoped that the initial findings present a useful inspiration for examining in more detail the promising patterns that have been identified.

8.3. Research Results and the UN-HLPF on Sustainable Development

The research results may have important implications for global institutions, first and foremost the UN High-level Political Forum on Sustainable Development (HLPF), where

countries meet annually to review progress on the SDGs. While the country-led Voluntary National Reviews (VNRs) are now an established tool to show-case what each country is doing in terms of progressing towards Agenda 2030 using a basket of indicators, a perspective on the inter-linkages between the goals is still missing despite being crucial to the fulfillment of the goals as the research study indicates. The review process of the HLPF should therefore require countries to report on what is the status of SDG inter-linkages in their country (in terms of existing and projected synergies and trade-offs), as well as to outline a policy strategy to deal with these inter linkages. Country processes of SDG implementation, as well as coordination mechanisms by international organizations on Agenda 2030 should make more use of the findings on SDG inter linkages. For example, by using the evidence as a tool to inform budget allocation with a view to maximizing effect of the money spent. Likewise, research on the SDGs should by default take into account the fact that there are important inter linkages between the goals, and incorporate such effects into analytical design as well as the formulation of implications.

Above all, the research findings offer a starting point for how researchers and policymakers can resolve the challenge of interactions between the SDGs, in particular regarding the persistent issue of trade-offs. The research has identified best practices where it has been possible over the last nine years to turn trade-offs into synergies. Further research should build on these successful examples and explore in depth the drivers and mechanism that enabled them. At the same time, the research has found evidence of a widespread and alarming inability to overcome trade-offs and indeed a deterioration in this regard for certain SDGs. Further research into how these trends can be reversed is urgently needed as otherwise they will seriously threaten the achievement of the UN 2030 Agenda.

9. Reshaping Global Governance for Sustainability

When UN Member States adopted the 2030 Agenda and its SDGs in September 2015, they signaled with the title '***Transforming our World***' that 'business as usual' is no longer an option and fundamental changes in politics and society are necessary. Four years later they have to admit that they are off-track to achieve the SDGs. In many areas there is no progress at all, and in some even regression. Destructive production and consumption patterns have further accelerated global warming, increased the number of extreme weather events, created plastic waste dumps even in the most isolated places of the planet, and dramatically increased the loss of biodiversity.

Fiscal and regulatory policies have not prevented the accelerated accumulation and concentration of wealth but have only made them possible and thus exacerbated social and economic inequalities.

Systemic discrimination keeps women out of positions of power, disproportionately burdens them with domestic and care-giving labour and remunerates their formal employment less than it does that of men. Total global military expenditure reached the historic high of US$ 1.822 trillion in 2018. In contrast, net ODA by members of the OECD Development Assistance Committee (DAC) was only US$153.0 billion in 2018, thus less than one tenth of global militar y spending. "The world is over-armed while peace is under-funded declares the Global Campaign on Military Spending.

Most governments have failed to turn the proclaimed transformational vision of the 2030 Agenda into real transformational policies. Even worse, national chauvinism and authoritarianism are on the rise in a growing number of countries, seriously undermining the social fabric, and the spirit and goals of the 2030 Agenda.

Despite these gloomy perspectives, there are signs of push-back. Policies reflect interests and power relations within and between societies and these are not carved in stone but are in constant flux and can be changed.

In response to the failure or inaction of governments, social movements have emerged worldwide, many with young people and women in the lead. Climate and economic justice issues have been championed by social movements in all regions, with indigenous communities in the front line of many of these. Movements against racial, gun and gender-based violence are growing in many countries, including the USA and India, while alliances of people with disabilities are becoming more visible, particularly at the global level. In a number of countries, most recently in Argentina, Sudan and Algeria, millions of people have taken to the streets to protest against authoritarian regimes and to demand democratic change.

The emerging global movements do not just challenge bad or inefficient government policies. What they have in common is their fundamental critic of underlying social structures, power relations and governance arrangements. It is worth mentioning that governments themselves recognized in the 2030 Agenda the "enormous disparities of opportunity, wealth and power" in the world as "immense challenges to sustainable development."

Thus, the implementation of the 2030 Agenda is not just a matter of better policies. The current problems of growing inequalities and unsustainable production and consumption patterns are deeply connected with power hierarchies, institutions, culture and politics. Hence, policy reform is necessary but not sufficient. Meaningfully, tackling the obstacles and contradictions in the implementation of the 2030 Agenda and the SDGs requires more holistic and more sweeping shifts in how and where power is vested, including through institutional, legal, social, economic and political commitments to realizing human rights.

In other words, a simple software update (of policies, norms and standards) is not enough. One has to revisit and reshape the hardware of sustainable development (i.e. governance and institutions at all levels). Revisiting the hardware of sustainable development has to start at the local and national level. While most governance discourses emphasize the democratic deficit, gaps and fragmentation in global governance, the major challenge for more effective governance at the global level is the lack of coherence at the national level. It is essential to reflect the overarching character of the 2030 Agenda and the SDGs in the institutional arrangements of governments and parliaments. Creating more effective and coherent global governance will be a futile exercise if it is not reflected in, and 'owned' by, effective national counterparts. Effective international arrangements cannot be determined or strengthened without commitments and coherence at the national and sub-national level, in all countries. Therefore, it is necessary to strengthen bottom-up governance.

Bottom-up governance refers not only to the direction of influence from the local to the global, it also calls for more governance space to be retained at local and sub-national levels. It enables, for instance, indigenous peoples, small farmers and peasant communities to exercise their rights in retaining their seeds, growing nutritious foods without genetically modified organisms and accessing medicines without paying unaffordable prices set by transnational companies and protected by intellectual property rights. In this regard, civil society advisory bodies like the Brazilian National Council for Food Security and Nutrition (CONSEA) play an important role, but in a growing number of countries they are under attack and face enormous political pressure. The SDGs are characterized by the call to "leave no one behind". However, indigenous peoples have not been accidentally left behind; they have been systematically pushed behind by economic and political systems which devalue their contributions and then disposes them of the very things that make them strong, their relationship to their land, or territory. In order to respect the rights of indigenous peoples, governance must change its current mode of operation. This includes the universal implementation of the principle of Free, Prior and Informed Consent with regard to all development and investment project as a basic prerequisite. Local governments and their communities are actively taking up the urban and territorial challenges to meet the SDGs and comply with global sustainability policy frameworks. To do so, they need adequate resources, authority and institutional capacity to transform cities and local communities into hubs of opportunity, sustainability and inclusion for all. The same is true for Universal Access Rights to Social Protection. Social Protection needs to be owned and governed by sub-national and national governments with fiscal space created in national budgets. An essential element of this is the need to tackle more concretely and firmly the formalization of the informal economy. Formalizing the informal economy according to ILO Recommendation 204,

supported by ILO Recommendation 202 on social protection floors, in a sustainable way is pivotal to reach the objectives of the 2030 Agenda (**Spotlight on SDG 8**).

Universal free access to essential public services are the foundation blocks of the SDGs and at the core of local governments' commitments to the 2030 Agenda. In most countries, local and regional authorities carry full or shared responsibility for water and sanitation, health and social care, waste management, education and culture. Government investment in public services is one of the most powerful policy tools to fight income inequality. It is estimated that free access to public services in OECD countries reduces this by 20 percent. Building public infrastructure and services is part of strengthening democratic institutions, where people determine which public services to prioritize and how they are to be delivered and paid for (**Spotlight on SDG 9**). This is especially true at the local level, where people have more direct access to their governments. However, the privatization of public infrastructure and services and various forms of public-private partnerships (PPPs) often have had devastating impacts on service accessibility, quality and affordability. Responding to these experiences, counter-movements emerged in many parts of the world. Over the past 15 years there has been a significant rise in the number of cities and communities that have taken privatized services back into public hands, a phenomenon called 'remunicipalization'. Research from 2017 listed 832 such cases since the year 2000, involving 1600 municipalities in 45 countries, in relation to water, energy, waste, transport, health and social care, education and other local government services.

However, local and national (fiscal) policy space is often limited by external interventions. The International Monetary Fund (IMF) plays a central role in this regard, particularly in countries of the Global South. Although the IMF presents itself as neutral economic arbiter, its approach is in fact deeply rooted in certain economic orthodoxies, many of which have proven incompatible with the achievement of the SDGs. In many countries, for instance Egypt and Brazil, IMF recommendations and loan conditionalities have led to deepening of social and economic inequalities and threats to human rights. (**Spotlight on SDG 10**).

Domestic policy space is further limited by trade and investment agreements. In March 2019, the UN Committee on Development warned governments of the global South. Unfortunately, if bilateral trade and investment agreements are signed or regional agreements with rich countries, then the freedom for action is vastly reduced.

Achieving the SDGs will not happen without an enabling environment at international level. But what is often seen is a disabling environment, that makes it difficult to raise the urgently needed domestic resources to finance public systems of social protection(**Spotlight on SDG 11**) and essential public services, particularly in the area

of health, education (**Spotlight on SDG 4**), water and sanitation (**Spotlight on SDG 6**) and sustainable energy. In endorsing the 2030 Agenda governments committed to enhancing policy coherence for sustainable development (**SDG target 17.14**) and to respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development (**SDG target 17.15**). The achievement of these targets is constantly undermined by the inherently asymmetric nature of the global governance system with the IMF and World Bank dominating discourse and policies. Thus, policy coherence will not be possible without overcoming governance incoherence.

10. No policy Coherence without Governance Coherence

The current system of global economic governance is marked by systematic asymmetry. While the IMF, the World Bank, the WTO and various organizations of global club governance, particularly the OECD, have financial resources and regulatory instruments to influence policies and laws mainly in the interest of transnational investors and powerful national elites, the UN has successfully been kept out of their business over decades. The most striking example is the asymmetry between human rights and investor rights. Today's trade and investment agreements give transnational corporations far-reaching special rights and access to a parallel justice system to enforce them, the Investor-State Dispute Settlement (ISDS) system. In a joint letter to the UN Commission on International Trade Law (UNCITRAL) in March 2019, leading human rights experts criticized the lack of investors' human rights obligations and addressed the urgency to remedy the power imbalance between investors and States.

Removing the ability of investors to sue States in the ISDS system and similar rules in investment and trade agreements would be a first step in reducing the systematic asymmetry in global governance. It would also be a step towards governance coherence for sustainable development. Enhancing governance coherence also means that the relevant UN bodies, particularly the High-level Political Forum (HLPF), must be strengthened and no longer *de facto* be subordinated to the international financial institutions and informal clubs like the G-20.

In the 2030 Agenda governments underlined the important role and comparative advantage of an adequately resourced, relevant, coherent, efficient and effective United Nations system in supporting the achievement of the Sustainable Development Goals (SDGs).

11. Development Goals and Sustainable Development

The UN established the HLPF as a universal body and gave it a central role in overseeing a network of follow-up and review processes at the global level. But compared to other

policy arenas, such as the Security Council or the Human Rights Council, the HLPF remained weak with fewer working days and a smaller UN budget allocation than the Commission on Sustainable Development, the body it replaced. The SDG Summit in September 2019 and the HLPF review process to take place in 2019-2020 are opportunities to reposition the HLPF more firmly in the General Assembly machinery, similar to the direction taken by the Member States for the Human Rights Council (HRC) and the Peace Building Commission (PBC) in 2005. With an agenda of equal importance and intimately connected to those of the HRC and PBC, the General Assembly should transform the HLPF to a third such body, a Sustainable Development Council, supported with complementary machinery at regional and thematic levels.

The annual Financing for Development (FfD) Forum and the Science, Technology and Innovation (STI) Forum are parallel review streams of two crucial means of implementation for the 2030 Agenda. The HLPF Review should address concerns on how the mechanism created to support the achievement of the SDGs through STI could effectively deliver in the face of disparate UN approaches towards new technologies. The untapped potential of the STI Forum must be harnessed by bringing together the various initiatives of the UN on new and emerging technologies under one umbrella. This should enable deliberations on how frontier technologies are redefining established norms and impacting on the achievement of the SDGs, and how these should be governed (**Spotlight on SDG 17**).

But the claim to make the UN system 'fit for purpose' requires more than upgrading the HLPF and its related fora. It requires a commitment to overcome the inequitable distribution of access to participation and decision-making in key areas of global governance. In this regard, advancing gender equality, women's empowerment and human rights are essential, particularly with regard to debt relief, global trade, technology transfer and institutional coherence (**Spotlight on SDG 5**). Strengthening participation and voice for women's rights in global governance requires ensuring direct participation by women's rights and feminist organizations in governance fora and bodies, not through women philanthropists or women entrepreneurs.

Enhancing governance also requires filling global governance gaps in areas that are still dominated by exclusive policy clubs like the OECD (on tax cooperation) and the Paris Club (on debt policy). This is of utmost importance as the past months exposed the worrisome combination of increasingly unsustainable debt levels, financial market volatility and currency instabilities, all generating concerns about the possible eruption of another global financial crisis. Two recommendations that are most cited and give concrete examples of the kind of institutional reforms that are needed, are first, the establishment of an intergovernmental tax body under the auspices of the UN, with the aim of ensuring that all UN Member States can participate equally in the reform of global tax rules; and

second, the creation of a Debt Workout Institution within the UN system, independent of creditors and debtors, to facilitate debt restructuring processes.

12. Democratic Governance requires Democratic Funding

Adequate funding at all levels is a fundamental prerequisite to improve the governance of SDG implementation. At the global level this requires the provision of predictable and reliable funding to the UN system. The total assessed contributions to the UN regular budget in 2017 were only meagre US$ 2.8 billion. Contributions to the operational activities for development of all UN funds, programmes and specialized agencies amounted to US$33.6 billion in 2017, but only 20.6 percent of the total supports the core work of the UN Development System with the balance mainly earmarked to favour individual donor priorities.

Enhancing governance coherence requires providing the institutions responsible for the implementation of the 2030 Agenda and the SDGs not only with the necessary financial resources but also with effective political and legal instruments. At global level this requires changing the current course of relying on non-binding instruments and corporate voluntarism. This is particularly relevant in areas where significant governance and regulatory gaps exist.

In recent discussions on a post-2020 global biodiversity framework all countries have been invited to consider developing 'voluntary biodiversity commitments'. But a voluntary commitment is not a real commitment, it is just a pledge. While the Aichi Targets are international obligations on State Parties to implement the nature of targets in the post-2020 framework and its relationship with national pledges remains to be seen. While voluntary contributions from various sectors of society are in principle welcome, this must not detract from State Parties' legally binding obligations to conserve and sustainably use biodiversity in their territories, and to share the benefits equitably. Mixing the two obfuscates obligations by State Parties and voluntary contributions by other actors, diluting and lessening State Parties' obligations. Therefore, the post-2020 framework should include binding targets and implementation commitments for State Parties, in accordance with the principle of common but differentiated responsibilities (CBDR).

Corporate Social Responsibility initiatives, such as the UN Global Compact and voluntary guidelines, the UN Guiding Principles on Business and Human Rights (UNGP) have particularly failed to hold corporations systematically and effectively accountable for human rights violations. The Human Rights Council took a milestone decision in establishing an intergovernmental working group to elaborate a legally binding instrument (or 'treaty') to regulate the activities of transnational corporations and other business

enterprises. This 'treaty process' offers the historic opportunity for governments to that they put human rights over the interests of big business. This will also be a critical prerequisite for implementing the 2030 Agenda, not least the goal to ensure sustainable consumption and production patterns.

13. UN 2020 Democratic Global Governance at the Crossroads

Scientists warn that the world is moving fast towards tipping points with regard to climate change and the loss of biodiversity, that is, thresholds that when exceeded can lead to irreversible changes in the state of the global ecosystem. Similarly, the system of global governance is facing tipping points that, when transgressed, lead to irreversible changes. Multilateralism is in crisis. There is still the danger of exacerbating authoritarianism and national chauvinism, and of not only shrinking but vanishing space for civil society organizations in many countries. But there is also a rapidly growing global movement for change, a movement that takes the commitment of the 2030 Agenda to "work in a spirit of global solidarity" seriously. The year 2020 with its official occasions, particularly the 75th anniversary of the United Nations, provides an important opportunity to translate the calls of the emerging global movements for social and environmental justice into political steps towards a new democratic multilateralism.

14. A Conceptual Analysis: Context-conflict-contingency model of humanitarian-development connections

The three distinct yet cross-cutting parameters (context, conflict and contingency) are equally relevant to humanitarian and development fields. Context is about a better understanding of the environment in which crises occur. It entails considering and assessing the different needs of a variety of actors and entities acting at different levels of governance (micro, meso, macro). Conflict is about an in-depth analysis of the root causes of crises of different durations and impact (short, medium and long-term). Contingency is about seeing crises from a threat, risk and/or resilience perspective rather than as discrete, uncertain events. Context, conflict and contingency parameters of humanitarian-development inter-linkages can be connected among each other through a focus on vulnerabilities and services.

Context is particularly important in cases where multiple crises at different levels of administration converge to produce dissimilar challenges for individuals, households, communities and institutions with different developmental attributes. Many humanitarian crises, for instance, engulf only some parts of the society and not others. Developmental challenges spawned by these crises permeate different segments of the population and institutions unequally, depending not only on the capacity and flexibility

to bear and withstand shocks, but also on many other elements ranging from environmental concerns to intergenerational equity.

One example where the significant role of context in interlinking humanitarian and development challenges is visible comes from the Central African Republic. The relatively low degree, yet the persistent nature of conflict in this country has engendered questions about the appropriateness of continued humanitarian assistance even though many developmental indicators would unequivocally call for an emergency response (SDSN 2016). Nigeria, Democratic Republic of Congo, Pakistan, Afghanistan and Ethiopia also display contextual attributes where either the duration of conflict and/or the level of development have born the question of whether both humanitarian and developmental assistance can be provided to different target populations. Therefore, what is needed is a granular focus on the different levels of conflict-micro, meso and macro, when addressing humanitarian and developmental needs of the vulnerable populations and institutions.

Conflict has long been on the radar of development and humanitarian activists, although often as part of an overall crisis paradigm rather than as a governance failure. The focus on the intersection of temporal and cross-cutting dimensions of conflict in relation to governance strategies is relatively recent. Today, the average duration of a humanitarian appeal for funding coordinated by the United Nations is seven years. 90 percent of appeals for humanitarian financial assistance carry on for at least three years (**OCHA 2017**). 86 percent of humanitarian funding goes to conflict-driven, and not entirely disaster-caused, calamities (**IDS/Sussex 2018**). Refugees fleeing war or persecution spend 17-20 years on average in refugee camps (**UNHCR 2018**). Sendai Framework for Disaster Risk Reduction takes a comprehensive approach to disaster management including natural and environmental along with economic, physical, social and cultural dimensions. Such factors further point at the entanglement of the humanitarian and developmental causes.

The need to understand the root causes of a conflict in terms of governance failures necessitates holistic, long-term and non-linear perspectives on prevention and preparedness as well as on response and recovery. Under this understanding, protection no longer supersedes anticipation or pre-emption. Rehabilitation is not enough and must be complemented with long-term post-conflict reconstruction with focus on service delivery (**UNDESA 2010**). Vivid examples can be drawn from Jordan and Lebanon where declining official financial flows have preceded the current refugee crisis, putting significant strains on national budgets once the crisis erupted (**Gonzalez 2016**). The recently established 'Global Concessional Financing Facility' is an example of coordinated international response to the humanitarian and development dimensions of the migration crisis in middle-income countries (**Keller 2017**).

Contingency is increasingly part of humanitarian and development action agendas. Risk-informed joint planning is a must for humanitarian first-responders as well as for national governments, development specialists, donor agencies, regional and international finance and development institutions, and local and national actors and institutions (**Earle 2016**). Contingency and risk approaches in humanitarian-development intersections are not confined to sectoral areas such as healthcare, food security and nutrition, involuntary displacements and migration (**Strachan 2017**). They extend to more structural and cross-cutting issue areas, including particularly infrastructure, consumption and production, urban planning, community empowerment and resilience building (**Chamla, Luo and Idele 2018**).

Examples of identifying threats, assessing risks, mitigating or eliminating vulnerabilities by building capabilities, strengthening community advocacy and promoting innovation can be found in many countries. The 2011 Fukushima nuclear disaster in Japan has given birth to the country's Fundamental Plan for National Resilience prepared by the National Resilience Promotion Office under the Cabinet Secretariat. The Urban Resilience Projects in Bangladesh's Social Management and Resettlement Policy Framework have combined planning and emergency response mechanisms with critical capacity building needs and structural resilience for vulnerable communities. Particularly prominent in these initiatives were sectors such as transport, housing, water and sanitation and waste management, to name a few. Other examples of contingency approaches to humanitarian and development challenges come from Uganda, Zambia, Tanzania, Ethiopia and Somalia where refugees, with support from the UNHCR-led Solutions Alliance, have become agents of change for themselves and for their host communities (**Samuel Hall 2016**).

The context-conflict-contingency model proposes two common cross-cutting threads: (i) the public administration focus on service delivery because all populations in both conflict and non-conflict situations should have access to basic public services, and (ii) the emphasis on vulnerabilities; because leaving no one behind is not only a humanitarian but also a developmental principle.

Vulnerability assessment consists of making sure that the services are provided effectively and inclusively to all relevant individuals and groups of population while also ensuring that service delivery is resistant to fraud and abuse. Locating the vulnerable and getting a full panorama of the specific and often intersecting liabilities may require the effective use of a variety of methods including exposure, threat, likelihood and gap assessment based on national census data, community surveys, heat maps and other technical tools including Geographic Information Systems, Remote Sensing and big 3D data (**UNDESA 2018b**).

Profiling, stress tests, and risk identification are some of the approaches used equally by both humanitarian and development specialists and practitioners in assessing

vulnerabilities and designing services. For example, the Multipurpose Cash Assistance Programme in Lebanon, implemented by the Lebanon Cash Consortium of six non-governmental organisations, determines beneficiary households by calculating their per capita monthly expenditure in relation to a range of variables, including the disability-adjusted dependency ratio. It considers all people with disabilities as 'dependent,' and categorizes them as affecting the household's vulnerability to the same degree, regardless of their gender, age, needs, skills and capacities (**Pearce and Lee 2018**).

The context-conflict-contingency model posits that micro-individual needs in short-term conflicts are best met with a focus on prevention by assessing threats. It suggests that meso-level functional or organizational development can best be supported with medium-term risk management frameworks based on effective combinations of risk mitigation and transfer techniques. Long-term protection, on the other hand, goes together with structural state capacity, preparedness and resilience building. Research has corroborated that securing quick gains while restoring basic functions of the State and simultaneously progressing toward sustainable peace and development require national ownership with engagement on the part of all relevant stakeholders and groups, particularly minorities, women, youth and their organizations (**UNDESA 2018**).

The proposed context-conflict-contingency model is flexible and can be adapted to countries' own needs in line with their unique situations. For example, facing one or more expectedly short-duration conflicts in a context where state capacity is already well established with all or the main governance institutions fully functioning, policy-makers can consider (medium-term, meso-level) risk management rather than either (short-term, micro-level) threat assessment or (long-term, macro-level) resilience building. Likewise, handling a protracted conflict in a context where individual needs are direly pressing might require an initial, sub-national threat assessment before a full-fledged, country-wide initiative of resilience building. A short-term threat assessment in such conditions can be used to buy the time to mobilize resources and devise a longer-term risk strategy. Preparedness to protect against long-term conflicts can, in other words, converge with prevention and pre-emption.

A conceptual framework is a useful didactic tool. It synthesizes and summarizes otherwise an indigestible load of disparate information into bits of easily decipherable and interconnected data. One helpful way to substantiate a conceptual framework is by examining if it can effectively reflect and explain empirical observations. Working from this assumption, the following section undertakes a content analysis of the 17 Sustainable Development Goals and their 169 targets juxtaposing the 2030 Agenda for Sustainable Development with the 5 responsibilities, 24 transformations and 32 core commitments of the Agenda for Humanity. The immediate objective is to find the linkages between the two agendas through a key term analysis ensconced in meaning, and then to

link these findings with the concept-conflict-contingency model to assess the viability of the latter in explaining humanitarian-development linkages.

15. A network analysis: Linking the 2030 Agenda for Sustainable Development with the Agenda for Humanity

The Agenda for Humanity includes 5 core responsibility areas, 24 transformations and 32 core commitments to alleviate suffering, reduce risk and lessen vulnerability. As part of the Secretary General's Report, UN, One Humanity, Shared Responsibility (A/70/709), it seeks to build on the commitments made by the 2030 Agenda for Sustainable Development. Cognizant of the salient features overlaps between the two agendas. The Sustainable Development Solutions Network (SDSN) had classified the SDGs and SDG targets with humanitarian connotations in a Background Document prepared for the World Humanitarian Summit of May 2016.

SDSN (2016) does not provide any justification for its classification of humanitarian SDGs. This approach therefore undertakes the task of in-depth examination of the links between the Agenda for Humanity and the 2030 Agenda for Sustainable Development. To do that, first, it identifies a host of key terms associated with each one of the 169 SDG targets of the 2030 Agenda for Sustainable Development, the 24 transformations and 32 core commitments of the Agenda for Humanity. Second, the analysis accounts for (i) direct linkages, i.e., verbatim overlaps between words and meanings across both development and humanitarian contexts; and for (ii) indirect linkage, i.e., non-verbatim overlaps between synonyms or adjacent concepts in either developmental or humanitarian context (such as participation and inclusion, equity and equality, war and conflict).

16. Humanitarian SDGs by the SDSN

This method is subject to interpretations in some cases. For instance, SDG 16.9 on providing legal identity for all, including birth registration is categorized as an indirect linkage to transformation 3.3 on ending statelessness because, although there is no verbatim overlap of terms, birth registration, legal identity and statelessness are closely related concepts. SDG 8.8, 10.7, 17.18, in contrast, make a verbatim reference to migration and are classified as direct linkages to transformation 3.2 (on migration) and the core commitment 3.3 (on migrants' host communities, among others). CC 3.2 on refugees and internally displaced people and CC 3.4 on refugees, however, are not categorized as direct or indirect linkages since they do not make explicit references to migration and migrants; instead, they refer specifically to the legally distinct groups of refugees and internally displaced people (IDPs).

The research analysis finds linkages across SDG targets between the Agenda for Humanity and the 2030 Agenda for Sustainable Development. From a humanitarian perspective, coherent financing, capacity building against crises, empowerment of women and inclusive decision-making are the focus areas where connections occur the most. Responsibility areas i.e. 1, 3 and 4 are most connected with the 2030 Agenda for Sustainable Development while responsibility areas 2 and 5 are less so. This is expected, since the latter are more specifically about war and humanitarian issues than the former three, which are about conflict, leaving no one behind and sectoral issues. Responsibility 4 on '***Working differently to end need'*** is the responsibility area that is most related to the 2030 Agenda for Sustainable Development.

From a developmental perspective, the SDG, which by far presents the highest number of connections to the Agenda for Humanity is SDG 17 on the Means of implementation including financing for development and partnerships. It has 32 linkages of which 11 are direct. SDG 17 is followed by SDG 11 on cities and human settlements with 18 connections to the Agenda for Humanity of which 5 are direct. The only SDG not found to present visible connections to the Agenda for Humanity is SDG7 on energy.

The three SDG targets that present the highest number of connections with the Agenda for Humanity (each with 5 connections) are SDG 11.b on 'Increasing the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and developing and implementing, in line with the 'Sendai Framework for Disaster Risk Reduction 2015-2030',holistic disaster risk management; SDG 13.b on Promoting mechanisms for raising capacity for effective climate change-related planning and management in Least Developed Countries and Small Island Developing States, including focusing on women, youth and local and marginalized communities; and SDG 17.1 on 'Strengthening domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection'. The highest number of connections does not mean that these connections are the most important ones. Four SDGs, i.e., SDG 4 on inclusive and equitable quality education, SDG 9 on resilient infrastructure, inclusive and sustainable industrialization and innovation, SDG 11 on inclusive, safe, resilient and sustainable cities and human settlements, and SDG 16 on peaceful and inclusive societies contain principal keywords ('inclusive' and 'resilient'), which are used to assess direct convergence between the two agendas. They can therefore prove to be qualitatively more relevant to the humanitarian-development connections than other SDGs or SDG targets that display higher counts of linkages.

Similarly, certain SDG targets are directly related to the Agenda for Humanity because they make verbatim references to the same concepts, and they do so exactly in the

context of crisis management, conflict prevention and for humanitarian and human-rights related purposes rather than in general and for development purposes only. For instance, SDG targets such as 1.5 on resilience of the poor and extreme events and 11.5 on disaster risk management can be as relevant to the humanitarian-development connections as can SDG11.b, which has the highest count of verbatim connections to the Agenda for Humanity, in addition to its explicit focus on the Sendai Framework of Action for Disaster Reduction.

17. Connecting findings of the network analysis with the conceptual model

The findings of the network analysis of the Agenda for Humanity and the 2030 Agenda for Sustainable Development can constitute a test case to see if the previously introduced context-conflict-contingency model is viable. If the 'context' (micro-meso-macro levels), 'conflict' (short, medium, long term duration), and 'contingency' (threat, risk, resilience) model cross-cut by a focus on vulnerabilities and services is valid, then it should be possible to parse out the humanitarian SDGs detected across the context, conflict and contingency pillars with a main focus on vulnerabilities, services or both.

The analysis gauges a service-focus based on whether the humanitarian SDG targets make references to services, such as access to education, health, decent employment, transportation, information, etc. This exercise finds that although most humanitarian SDGs focus on vulnerabilities as expected and that many do so on services, either together with vulnerabilities or without, there is still a sizeable group of humanitarian SDG targets that this exercise finds as containing neither a vulnerability nor a service focus. This finding could be an indication that the proposed humanitarian-development model of context-conflict-contingency cross-cut by vulnerabilities-services is incomplete.

To further investigate whether the conceptual model and the findings of the network analysis can be reconciled with each other, the research analysis undertook a closer reading of the 27 humanitarian SDG targets found not to be associated with a vulnerability or a service focus. The research analysis showed that most of these SDG targets are about policies to instill equitable and/or internationally agreed standards to benefit all people. Their focus therefore is not explicitly on services but on policies, which are necessary to design, implement and control services. Also, instead of vulnerable groups, they stress all people.

One exemplary SDG target that was grouped in the no service-no vulnerability (none) category is SDG 13.3 on 'Improving education, awareness-training and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early

warning'. Clearly, this target is about an institutional process that will produce services to mitigate vulnerabilities. The vulnerability-service focus, in other words, is implicit. Another SDG target grouped as no service-no vulnerability is SDG 14.1 on Preventing and reducing marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution. This target implies several initiatives and services, which will benefit the most vulnerable coastal communities. Once more, service and vulnerability foci are implicit.

Based on these findings, one can conclude that all or most of the 27 SDG targets categorized as neither as service or vulnerability-focused are about policies to formulate and offer services for all, including the vulnerable. They can thus be safely merged with either the service or vulnerability areas depending on their implicit emphasis on one or the other. Another option to improve the proposed conceptual context-conflict-contingency model could be to add a third cross-cutting parameter of policies. It would thus be context-conflict-contingency model cross-cut by vulnerabilities and policies. Further research can investigate the applicability of the conceptual model by using it to assess relevant empirical cases of humanitarian-development connections.

18. Perception of Trade Unions on SDGs

Trade unions are key to the 2030 Agenda. They are central actors in the world of the productive sphere of society and their work relates not only to SDG 8 which covers economic growth and decent work but also to other issues such as gender equality, equality in general, ending poverty, education and others. They have accumulated experience of more than a century of negotiations and social agreements, in all countries of the world, and this is a great wealth to contribute to advancing the 2030 agenda. With the objective of contributing their skills and knowledge to the creation of a developmental model that is true to the spirit of the 2030 Agenda, trade unions have undertaken to build an independent worker's perspective on the implementation of the Sustainable Development Goals (SDGs). This work involves an in-depth monitoring process at national level, focusing on how well governments make use of transparency, consultation and social dialogue mechanisms to involve trade unions in the drafting and implementation of the national sustainable development plans. In order to provide a complete picture of the situation, the monitoring also looks at how the country is doing to reach specific key targets within the SDGs in the context of existing structural political and economic challenges.

19. Social Dialogue

Social dialogue is a fundamental means of implementing 2030 Agenda, the use of tripartite or bipartite social dialogue to establish common positions between employers

and employees has been shown to a have positive effect on achieving 2030 Agenda targets. It builds consensus among social partners, facilitates policy implementation and results in more inclusive policies. Shaping the world of work to meet the demands of 2030 Agenda is cross-cutting and fundamental to achieving each of the 17 SDGs. Trade unions' analysis has highlighted vastly insufficient integration of social dialogue into the implementation process of the SDGs. Cases in which workers and employers are consulted together are rare and tend to be confined to SDG 8 (decent work) rather than the 2030 Agenda implementation as a whole. Where social partners are consulted, a siloed approach persists, in which little effort to bridge their perspectives or encourage joint submissions on the SDG implementation process is made. No trade union reported the existence of a tripartite entity to implement and monitor the SDGs, which would involve both social partners and decision makers. To ensure better involvement of all stakeholders in the SDG implementation and monitoring processes, trade unions call for a rights-based approach to the design and implementation of public policies. Integrating social dialogue as a governance mechanism for the implementation process was repeatedly put forward as a way to achieve this. Trade unions further expressed their commitment to a multi-stakeholder approach and called on governments to integrate comprehensive consultation provisions in the design, implementation and monitoring of policies. Among recommendations on how to better integrate 2030 Agenda into national policies, trade unions made several suggestions.

A recurring recommendation was for the SDGs to be mainstreamed across government policies. Where it does not exist, the need for a national plan with a clear allocation of responsibilities was highlighted. Where such plans were in place, certain recommendations highlighted the need for further internal coordination among the ministries as well as between the national, regional and local levels of governance. In addition, some countries do not have specific or sufficient budgetary allocations for the SDG implementation process, which was seen as a major obstacle to the integration of 2030 Agenda at national level. Finally, trade unions suggested specific indicators and targets that they believe should be integrated into their countries' Agenda 2030 assessment to ensure a more representative picture of their progress.

Conclusion and Policy Implications

The research paper entitled ***'Sustainable Development Goals(SDGs) Global Peace and Humanitarian Aid: An Analysis'*** is an attempt to analyze the relationships existing between SDGs, Global Peace and Humanitarian Aid in order to assess and comprehend to delineate a comprehensive global agenda to achieve the Sustainable Development Goals(SDGs) slated by the United Nations by the turn of 2030. The paper makes an attempt to study the interactions between SDGs across economies evolved over time. The issues

relating to synergies and trade-offs between the SDGs are also been analyzed in the research study. The pledge has been that all the members nations which are signatory to the United Nations need to plan, devise, coordinate and make sincere efforts to achieve the implementation of SDGs by the turn of 2030 slated by UN. Research studies have shown that there is an urgent felt need of analyzing the trends, behavioral relationships amongst and across the SDGs to assess the synergies and trade-offs existing between the SDGs to rectify the same for smooth implementation of the 2030 Agenda on SDGs. The aspect-wise review of literature has been dealt with in detail in the research study. The focus of the study has also been on certain key issues and concepts such as SDGs, Peace, Humanitarian Aid, SDG Index and Dashboards on SDG indicators 2010 to 2018, SDG interactions using the SDG Index and Dashboards, changes in synergies between SDGs, changes in trade-offs between SDGs etc., The other aspects dealt within the research study include interactions between projected SDGs and HICs(High Income Countries), MICs(Middle Income Countries) and LICs(Low Income Countries), behavior of SDGs trend etc., The research results emanating from these relationships, particularly the trade-offs between the SDGs would have important implications for global institutions such as the most importantly globally deliberated and discussed UN-HLPF on Sustainable Development.

The research analysis undertaken in the study has revealed that although the humanitarian-development divide is not found verbatim in any SDG target, the linkages detected across SDG targets are significant. SDG 17 on financing for development, SDG 16 on peace, justice and institutions and SDG 11 on sustainable cities are particularly relevant to the intersection of humanitarian-development fields.

Depending on the sectoral focus, several SDG targets, such as SDG 3 on health and well-being, SDG4 on education, SDG 13 on climate change and SDG 15 on the sustainable use of terrestrial ecosystems, can also be very useful connectors between developmental and humanitarian perspectives. SDG 5 on gender equality and empowerment is particularly important since it is part of inclusive decision-making, capacity building, and crisis management, the three overlapping areas detected between the 2030 Agenda for Sustainable Development and the Agenda for Humanity.

The proposed context-conflict-contingency model interlinked by vulnerability and service (and possibly also policy) focus areas associated with public administration can constitute a useful tool in calibrating the types and levels of humanitarian-developmental connections. Contextual layers, conflict durations and contingency types can very well intersect and overlap with each other depending on the unique attributes of any given humanitarian crisis and the specific developmental challenges they present. One would hope that the proposed model clarifies possible combinations of humanitarian and development strategies by shedding light on the humanitarian SDG targets with linkages to the Agenda for Humanity.

The implications of the research study are that further research needs to be undertaken to reverse the trends of these trade-offs between SDGs and to identify effective solutions to develop the synergies between the SDGs in order to analyze the trends and behavior of these SDGs for effective implementation of the 2030 Agenda on SDGs slated by UN. The research study reveals that there is a widespread and alarming inability to overcome trade-offs between all the SDGs.

The study has identified and assessed the relationships among the macro variables relating to all the 17 SDGs. The study has covered aspects such as reshaping global governance for sustainability, governance coherence, development goals and sustainable development, democratic governance and democratic funding, UN 2020 democratic global governance, linkage of 2030 Agenda for SDGs with the agenda for humanity, humanitarian SDGs by the SDSN, perception of global trade unions on SDGs, social dialogue etc.,

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