GENDER EQUALITY FOR HEALTH AND WELL-BEING: EVALUATIVE EVIDENCE OF INTERLINKAGES WITH OTHER SDGS

FINAL REPORT

UNITED NATIONS UNIVERSITY
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ACRONYMS

AIDS	AIDS - Acquired immunodeficiency syndrome
CARICOM	Caribbean Community
CFA	Confirmatory factor analysis
CLD	Causal loop diagrams
CSW	Commission on the State of Women
GBV	Gender-based violence
GDI	Gender Development Index
GNP	Governance and national planning
GSE	Google Sentence Encoder
HDI	Human Development Index
HIV	Human immunodeficiency virus
ICT	Information and communications technology
IPV	Intimate partner violence
M&E	Monitoring and Evaluation
MCA	Multiple correspondence analysis
MNCH	Maternal, newborn, and child health
NLP	Natural Language Processing
SADC	South Africa Development Community
SEM	Structural equation modeling
SME	Small and Medium Enterprises
SRHR	Sexual and reproductive health rights
STEM	Science, Technology, Engineering, and Math
UNDAF	United Nations Development Assistance Framework
UNEG	United Nations Evaluation Group
UNSDCF	United Nations Sustainable Development Cooperation Framework
UNU IIGH	United Nations University International Institute for Global Health
VAW	Violence against women
WASH	Water, sanitation and hygiene
WISE	Work improvement in small enterprises

SDG INDEX

	End poverty in all its forms everywhere		End hunger, achieve food security and improved nutrition and promote sustainable agriculture
	Ensure healthy lives and promote well-being for all at all ages		Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
	Ensure healthy lives and promote well-being for all at all ages		Ensure availability and sustainable management of water and sanitation for all
	Ensure access to affordable, reliable, sustainable and modern energy for all		Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		Reduce inequality within and among countries
	Make cities and human settlements inclusive, safe, resilient and sustainable		Ensure sustainable consumption and production patterns
	Take urgent action to combat climate change and its impacts		Conserve and sustainably use the oceans, seas and marine resources for sustainable development
	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss		Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
	Strengthen the means of implementation and revitalize the global partnership for sustainable development		

SUMMARY

Understanding synergies and trade-offs between sustainable development goals (SDGs) is an important component of SDG focused evaluations. Progress towards SDGs needs to consider feedback and interaction between society, the economy, and the biosphere and the interventions aimed at achieving these goals. However, the current assessment approach is based on only one or a few indicators that do not evaluate the interdependence between goals and targets. Recently, research efforts were undertaken to map the interlinkages between SDGs, most notably by Nilsson, Griggs, and Visbeck (2016) that demonstrated interactions between SDGs 2 (Zero Hunger), SDG 3 (Good Health and Well-Being), SDG 7 (Affordable and Clean Energy) and SDG 14 (Life Below Water); and Vladimirova and LeBlanc (2016) that showed evidence of interactions between SDG 4 (Quality Education) and the other SDGs. However, more evidence from multidisciplinary evaluations and academic studies are needed to inform multisectoral approaches that coordinate efforts to promote gender equality and to ensure healthy lives and wellbeing for all.

This project is a collaboration between the UN Women's Independent Evaluation Service and the United Nations University International Institute for Global Health (UNU IIGH) to explore the link between SDG 3 and SDG 5 (Gender Equality), as part of a system of interconnected SDGs and indicators within these goals. This study consists of an analysis of evaluation reports of United Nations Evaluation Group (UNEG) members to build conceptual models (Phase 1) whose interlinkages can be analysed empirically with secondary data analysis (Phase 2).
In Phase 1, a data science method for text mining classified (from the universe of available reports at the UNEG Database of Evaluation Reports) the relevance of each of the 17 SDGs, as well as extracted the countries and any metadata information of the interventions. Equipped with this information, we selected 289 reports across 26 United Nations (UN) agencies and United Nations Development Assistance Framework (UNDAF) evaluations for which gender

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and health were the most relevant. The selected reports were manually analysed in terms of their content using a framework of realist evaluation that considers mechanism, context, and outcomes of interventions evaluated (Marchal et al., 2012). Screening the interventions based on inclusion criteria that would refine the initial automatic selection of reports and applying the realist evaluation framework to these interventions was revealed to be an efficient approach to uncover the interlinkages between SDG 3, SDG 5, and other SDGs. Using a system thinking approach, several thematic conceptual models were constructed that would illustrate the type of linkages between systems of SDGs and the contexts that were drawn.

Overall, based on the reports included in this review, it can be concluded that gender equality has strong linkages with health and well-being directly or indirectly through other SDGs under multisectoral, collaborative contexts. In other words, promoting gender equality is associated—not necessarily causally—with improvements in a variety of health, well-being, and other development outcomes. The UN evaluation reports included in this study highlight that associations between gender equality and improvement in health and well-being and other SDG outcomes are cross-sectoral. These findings suggest that coordinated and integrated approaches in delivering development interventions will achieve meaningful development objectives.

The overall evidence in this report is strong in supporting gender mainstreaming interventions to achieve gender equality and to improve health and well-being and other goals. However, some goals were not considered with gender, despite their relevance for health (e.g., SDG 7) and we did not identify any negative interactions between gender equality and health and well-being and other SDGs. Based on the findings, there is a need to develop stronger

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evaluation designs and methods to identify how and why SDG 5 interacts with SDG 3 and other SDGs in reinforcing and negating ways, and in what contexts, to support informed decision-making on trade-offs for more positive progress across the SDG framework.

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1 BACKGROUND

The UN Agenda for 2030 places great emphasis on gender equality as a cross-cutting goal. Gender Equality refers to the equal rights, responsibilities, and opportunities for women and men as well as girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities, and opportunities will not depend on whether they are born male or female (Office of the Special Advisor on Gender Issues and Advancement of Women, 2001).

The importance of gender equality for effective action on all aspects of sustainable development has been recognised in the early thinking of the SDG framework (United Nations, 2012). Recent studies have consistently shown that addressing gender inequalities is the most impactful way to deliver on all five pillars of the global commitment: People, Planet, Peace, Prosperity and Partnerships (Hepp, et al., 2019).

The effects of unequal opportunities on health and wellbeing which are constrained by gender norms and gender-biased power structures have been well-documented in specialised literature (Doyal, 2000; Taukobong et al., 2016, Heise et al., 2019). There are some documented examples of how gender equality contributes to health and well-being, such as studies that have shown how female representation is associated with progress in health and education sectors (Kose, Kuka, and Shenhav, 2018). Geys and Sørensen (2019) showed that gender quotas in parliament in low-income countries (indicator 5.5.1) have been associated with a decline of between 9% to 12% in maternal mortality (indicator 3.1.1). This association might be accounted for by how women advocate for an increase in the proportion of skilled prenatal care and birth attendance (indicator 3.1.2), as well as higher school enrolment for girls (indicator 4.5.1) which leads to a decrease in birth rates in adolescents. Additionally, female political leaders contribute to challenging entrenched gender norms that contribute to improvements on a range of health-related outcomes (Paxton, Sheri, and Kunovich, 2007).

However, the gender and health literature tends to be fragmentary with a narrow focus on particular diseases, with a limited global analysis of how improved gender equality contributes to a comprehensive set of health and wellbeing outcomes. As a result, evidence for mechanisms (Marchal et al., 2012) whereby gender equality is associated with health and wellbeing outcomes and the structural factors – economic, societal, political, environmental – that enable or reinforce this relationship are not completely understood.

Lacouture et al., (2015) proposed the following definition of a mechanism based on a scoping review of definitions in the literature as: "an element of reasoning and reactions of (an) individual or collective agent(s) in regard to the resources available in a given context to bring about changes through the implementation of an intervention. A mechanism results in the interaction between human agents, intervention, and structures. It reflects the logic of intervention of the various actors involved directly (e.g., stakeholders) or indirectly (e.g., populations) in the intervention (p. 8)'.

Recent conceptual developments have introduced intersectionality to examine the complex and dynamic interactions between gender, age, race, class, and disability, to determine how health is shaped across multiple segments of society and geographical contexts (Kapilashrami and Hankivsky, 2018). Intersectionality can advance the 'Leave No One Behind' agenda by attending to multiple disadvantages that underpin the exclusion of certain population groups.

Understanding the interactions between SDGs is crucial for implementation. Nilsson, Griggs and Visbeck (2016) pointed to the risks of ticking off targets one by one, suggesting that the complex interactions between goals need to be acknowledged. The type of interactions includes indivisible, reinforcing, enabling, constraining, counteracting, and cancelling. Based on this framework, Griggs et al. (2017) demonstrated interactions between SDGs 2, 3, 7, and 14, and Vladimirova and LeBlanc (2016) showed evidence of interactions between SDG 4 and all SDGs. As the evidence for interactions between gender-related SDGs is limited, more evidence from multidisciplinary evaluations and academic studies are needed. This evidence will inform multisectoral approaches that coordinate efforts to promote gender equality and to ensure healthy lives and well-being for all.

2 OBJECTIVES

This project is a collaboration between the UN Women's Independent Evaluation Service and UNU IIGH to explore the link between SDG 3 and SDG 5, as part of a system of interconnected SDGs.

In particular, we proposed studying the relationships between gender equality and health and wellbeing considering their mutual influence on other gender-relevant goals, which can include: SDG 4, SDG 6 (Ensure availability and sustainable management of water and sanitation for all), SDG 8 (Decent Work and Economic Growth), SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action), and SDG 16 (Peace, Justice and Strong Institutions). For the study of the interactions between SDG 3 and SDG 5, we also considered target level interactions between and within these goals.

The objectives of this project were:

1. **To consolidate the existing evidence on the relationship between SDG 3 and SDG 5 as they interlink with other SDGs, based on UN evaluations, selected flagship reports, and peer reviewed literature;**

2. **To generate additional evidence based on secondary data analysis on the mechanisms whereby gender equality impacts health and wellbeing (and vice versa), directly or indirectly, through other gender-related goals.**

This project looks at the existing evidence of the linkages between gender equality and health to answer the questions of 'how?' and 'in which contexts?'. It also aims to improve monitoring and evaluation of the interlinkages of SDGs and to compile data sources that would be suitable for this type of analysis.

This study builds on the recommendations and next steps of the Guide for SDGs interactions (Griggs et al., 2017), specifically:

1. build the evidence base of SDG interlinkages,
2. apply systems thinking approach,
3. embed interactions into monitoring and review processes, and
4. strengthen the science-policy interface.

Unlike the Griggs et al. (2017) study that was focused on SDG 2, we used as a starting point the links between SDG 3 and SDG 5 with other SDGs, and adapted the Griggs et al., (2017) guide's conceptual framework for a more complete understanding of how the full set of goals fit together.

This report is aimed at programme designers, evaluators, and researchers who design, evaluate, and research interventions that consider outcomes across several SDGs. It is also aimed at policymakers who make the decisions as to which interventions will be pursued
and funded.

3 STUDY PHASES

The study employed systems thinking (Weinberg, 2001) which is "an approach to problem-solving that views problems as part of a wider, dynamic system" (de Savigny & Adam, 2009).

A systems thinking approach refers to multi-level governance which encompasses interactions within and between different levels of a system (Marks, 1993). Systems thinking adopts a conception of the social world as a whole entity (Peters, 2014) and has helped to improve the understanding of sustainable development based on the interactions of different SDGs, their feedback, and mutual progress. Furthermore, systems thinking has helped in the identification of both intended and unintended consequences of a particular intervention (Mutale et al., 2016).

Systems thinking is also needed to conceptualise the relationship between SDGs with the political, institutional, cultural, and economic contexts that explain different patterns of interactions (Griggs et al., 2017). Based on a systems thinking approach for SDGs interlinkages, we analysed the interlinkages between SDGs 3, 5, and other SDGs in evaluation reports, through six sequential steps organised in two stages – consolidation and generation of evidence (Figure 1).

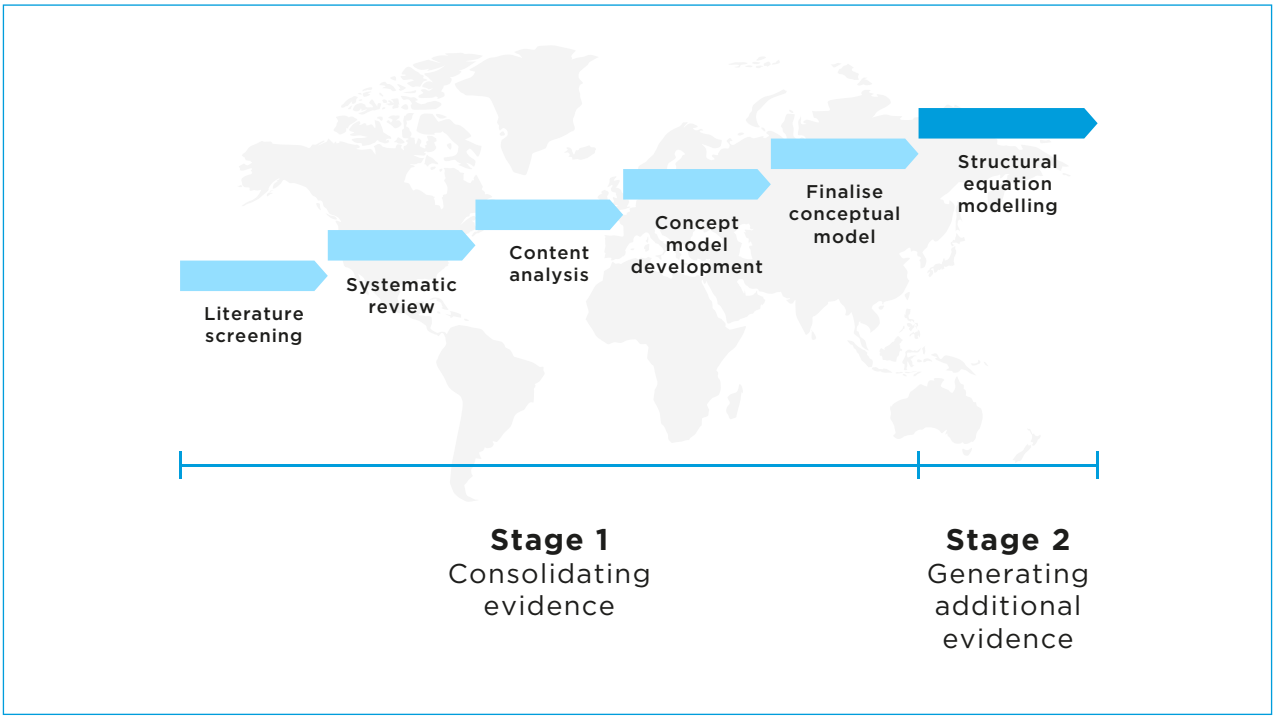

Figure 1. Study procedures in stages

3.1 SYSTEMATIC REVIEW OF UN REPORTS

We used a systematic review methodology to identify and extract information from evaluation reports from UN agencies that are part of the United Nations Evaluation Group (UNEG). The method consisted of developing a data science approach to systematically select study-relevant reports with a focus on gender and health from a large number of available reports. We reviewed the reports from the UNEG Database for Evaluation Reports (UNEG database) periodically to ensure that recently published reports were also being included. We complemented the analysis with a literature review of SDG interlinkages to enrich the references in this report (Annex C).[1]

The systematic review aims to consolidate the existing evidence on the relationship between gender equality and health and wellbeing as they interlink with other SDGs. The evidence base used is UN evaluations, selected flagship reports, and peer-reviewed literature. The research questions that guided the systematic review were:

1. What are the SDG interlinkages between SDG 3 and SDG 5 and other SDGs at the goal level?
2. What are the SDG interlinkages between SDG 3 and SDG 5 at the target level?
3. What are the important mechanisms, contexts, and systemic factors influencing the observed interlinkages?

The SDG interlinkages can be between goals, between a goal and other targets, or between targets (Zhou & Moinuddin, 2017). In this project, we focus on all the above interlinkages, direct or indirect, between SDG 3 and SDG 5. For SDG 5, four out of the six targets and seven indicators specifically refer to health and wellbeing. The other two targets and respective indicators address overall discrimination and lack of access/resources based on gender discrimination, which are also linked to wellbeing and mental health outcomes.

For SDG 3, there are six gender-specific indicators: 1) maternal mortality ratio; 2) births attended by skilled health personnel; 3) new human immunodeficiency virus (HIV) infections, by sex; 4) satisfactory family planning with modern methods; 5) adolescent birth rate; 6) coverage of essential health services, including reproductive and maternal health (Manandhar et al., 2018: 644-645).

3.2 EMPIRICAL MODEL TO TEST SDG INTERLINKAGES

To empirically test the interlinkages of a conceptual model with secondary data, we have selected the conceptual model for gender-based violence model developed as part of this project and tested a simplified version of this model with survey data from the Jamaica Women's Health Survey (2016). The objective of this step is to complement one of the conceptual models with empirical evidence for the mechanisms that can allow us to corroborate associations and to discover new linkages among SDG 3 and 5 and other SDGs such as SDG 4, SDG 8, and SDG 11.

[1] The list of articles included in the extraction is available on request.

4 SYSTEMATIC REVIEW OF UN REPORTS

4.1 Method of the systematic review

4.1.1 Identification of relevant evaluation reports

The UN evaluation reports were accessed through the UNEG database and websites of UN agencies in order to cross-check and correct omissions. We also included and United Nations Development Assistance Framework (UNDAF) evaluation reports included in the UNEG Meta-synthesis of UNDAF evaluations from a gender lens,[2] which are large joint or system-wide evaluations of the UN's work within a country. To identify relevant reports, a combined automatic text mining and manual inspection method was employed. In the first step, the reports were classified in terms of their relevance for gender and health using Natural Language Processing techniques (NLP) (Bird, Klein and Loper 2009). A subset of high relevance and low relevance reports were inspected manually to confirm the final selection of studies. The steps taken to identify the evaluation reports to be included in the study were:

Step 1 Access all available evaluation reports from individual agency and UNEG websites from January 2014 to August 2020;

Step 2 Select the reports relevant to analyse the interaction between SDG 3 and SDG 5 with other SDGs. Running an NLP model to detect terms associated with SDG 3 and SDG 5 on all evaluation reports;

Step 3 From the selected reports, automatically detect using NLP other SDGs included in the report and metadata of the report such as intervention year and country/regions;

Step 4 Quick manual inspection of reports selected in Step 3 to check whether they consider interactions between SDG 3 and SDG 5 based on titles, summaries, and abstracts, and to classify them as validated/not validated;

Step 5 Final selection of the reports based on manual validation of SDG 3 and SDG 5 interaction.

The detailed description of each step is below.

[2] http://www.unevaluation.org/document/detail/1452

Step 1 Accessing all evaluation reports from individual agency and UNEG websites

To identify relevant evaluation studies, we first automatically downloaded publicly available reports from the UNEG database and UNEG member websites. The 'Global Knowledge Platform to End Violence against Women' was also searched. The review included UN evaluations and flagship reports. From 57 member agencies listed on the UNEG website, we selected 27 agencies (plus the UNDAF) whose Strategic Plans and Objectives highly integrated both gender and health, and were therefore the most relevant to the study. These include but are not limited to UN Women, UNAIDS, UNDP, UNFPA, UNICEF, World Food Programme, WHO, ILO, and UNHCR. A complete list of agencies and number of reports selected is provided in Table 2.

Step 2 Select the reports that were relevant for analysing the interaction between SDG 3 and SDG 5

In this step, NLP techniques were used to classify documents based on their relevance to SDG 3 and SDG 5. Hundreds of reports were gathered and classified through a Natural Language Processing (NLP) model developed for this project based on semantic-similarity between SDGs and a list of keywords[3] related to gender issues and gender equality. The goal of this model was to obtain a relevance score that quantified the semantic distance between each report and each SDG. To measure those distances, we used Google Sentence Encoder (GSE)[4] to encode and vectorise: (1) the keywords of each SDG, and (2) available documents and references to gender equality. By encoding and vectorising each SDG in (1) and each report in (2) we ended up having one vector of 128 dimensions for each SDG and one vector of 128 dimensions for each report we want to classify. We then measured the distance between those vectors to semantically classify the reports based on the cosine distance between each report's vector and each SDG keywords' vector, where the closer the report vector to an SDG keywords' vector, the more semantic similarity is assumed between them. Figure 2 illustrates the key steps in NLP.

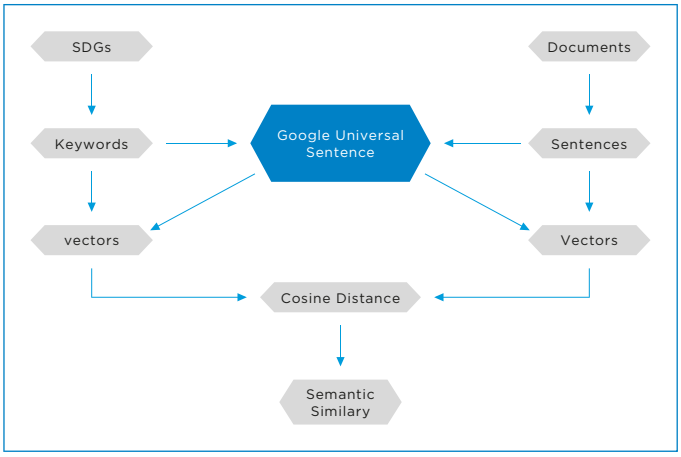

Figure 2. Key steps in Natural Language Processing

[3] Compiled from http://www.sirisacademic.com/ and https://sustainabledevelopment.un.org/

[4] The pre-trained Universal Sentence Encoder is publicly available in Tensorflow-hub: https://tfhub.dev/google/universal-sentence-encoder-large/5

GSE is a huge vector space developed by Google Research Team over years, in which Google stores the semantics of words, expressions, and phrases. They used 200 Billion words to train this model, mostly extracted from the Google News Archive (Cer et al., 2018). In GSE, every word, expression, or phrase has a numerical coordinate of 128 dimensions, where similar words, expressions, and phrases are clustered together in close/similar proximity. Knowing where similar words are located in the vector space allowed us to encode reports and compose a unified vector of coordinates for each report. Parallel to this, we also encoded the keywords of each SDG into a unified vector of 128 coordinates, then used Cosine Distance to measure the distance between each report coordinate and SDG coordinates.

The results and code for this model are made publicly available.[5] The model was tested on a dataset of more than 100 reports (extracted from the official UN Women website) and successfully managed to measure their semantic distance from each SDG and classify them accordingly. We also tested the model with a random set of documents, which were not directly relevant to SDGs, including Charles Dickens novels, William Shakespeare plays, renewable energy in New Zealand, a report on Education in Africa, to check if the model successfully placed each document in the most relevant SDG categories.

Step 3 From the selected reports, use NLP to detect other SDGs included in the report and metadata of the report such as year and country/region.

Having the model developed and tested has allowed us to proceed to the next phase of the classification of other SDGs included in the report (**Figure 3**). We have improved the model in two areas. First, we added a web scraping functionality to the model, so that in the future, we will not need to collect and manually download the reports that we want to classify. The model will be able to access designated websites, read the required documents, and classify them in real-time. The second improvement was to include the metadata of the documents in our analysis. In this step, we could measure the distance between each SDG and the country from which the documents originated and the country/ies the report covered. This allowed us to read and understand the different orientations in different countries, what they focus on, what they need, and how different SDGs are interlinked in each country.

[5] https://github.com/iigh-unu/IIGH-UNU

File	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16
1	0.997053	0.930159	0.96483	1.025859	0.840839	0.995253	0.918087	0.992387	0.940279	0.934385	0.909001	0.982187	0.983163	0.967093	0.922187	0.965202
2	0.974772	0.912318	0.941158	0.96517	0.882211	0.959953	0.950461	1.02085	1.005793	0.929077	0.941509	1.007723	0.954146	0.993652	0.931658	0.915881
3	0.961755	0.905386	0.89975	0.897735	0.844573	1.049971	0.946339	0.970188	0.981702	0.927533	0.949197	1.043294	0.969823	1.032546	1.009804	0.922338
4	1.005935	0.998276	0.952738	0.950214	0.84271	0.976585	0.954503	1.009571	1.027314	1.020734	0.951669	1.016482	0.942793	1.049474	1.058824	0.998151
5	0.946447	0.969682	0.95528	0.973479	0.840343	1.019123	1.012564	1.039366	1.015814	0.953986	0.894297	1.079126	0.968467	0.934835	0.89924	0.885892
6	0.950701	0.928636	0.953003	1.040183	0.843378	1.054718	1.002445	1.009978	0.996996	0.878365	0.989706	1.082843	0.988351	0.997753	0.975307	0.933794
7	0.963492	0.892111	0.969512	1.039318	0.823029	0.971118	0.966231	1.048393	1.01588	0.94373	0.914526	1.044652	0.922334	0.985986	0.93729	0.97739
8	1.009603	0.884002	1.029624	1.040862	0.90631	0.994299	0.980371	1.025502	0.998794	0.978306	0.938398	0.991512	0.969251	0.975194	0.885381	0.915334
9	0.994351	0.972514	0.974736	1.038111	0.912445	1.0471	0.963392	1.034608	0.992253	1.030542	0.9401	0.964791	0.942371	0.960004	0.914736	0.88555
10	0.99204	0.911906	0.906569	0.980419	0.877812	1.008511	0.949444	1.001169	0.993217	0.979106	0.926415	0.988331	0.974826	0.965991	0.893061	0.875028
11	1.001097	0.990797	0.95004	1.008493	0.888759	1.031311	1.02407	1.043336	1.019311	0.996451	0.92001	1.00284	1.025695	1.00671	0.939391	0.917442
12	0.978934	0.955075	0.946677	0.976943	0.746475	1.022409	0.96098	1.016308	0.999039	0.925458	0.94342	1.038567	0.931054	1.025905	0.965128	0.908427
13	0.982746	0.921785	1.017692	1.039633	0.836826	1.06396	0.946337	1.017186	0.983338	0.944221	0.9076	1.031811	0.964674	0.940404	0.937586	0.938308
14	0.999383	0.891822	1.005472	0.98485	0.895317	1.03628	0.961051	0.994192	0.972769	0.933265	0.95732	0.992245	0.968603	0.990527	0.930402	0.99575
15	0.993295	0.904406	0.989281	1.034705	0.882002	1.029401	0.967659	0.952636	0.914885	0.913241	0.900537	0.987042	0.981226	0.966705	0.960878	0.953259
16	1.021647	0.895547	1.004041	1.003818	0.85149	1.047299	0.973282	0.968807	0.924118	0.929046	0.920906	1.001627	0.967818	0.946242	0.910348	0.901053
17	1.029067	0.919553	0.970758	1.05278	0.872687	1.035391	0.983579	1.011815	1.004107	0.918328	0.965042	1.056997	0.990368	1.002554	0.965354	0.935024
18	1.001999	0.970465	0.998889	1.038521	0.882765	1.074134	1.024761	1.033594	1.047507	0.912979	1.004022	1.102339	0.996248	1.006229	0.972212	0.942767
19	1.061469	0.908118	1.032381	1.051397	0.884401	1.046832	0.968883	0.990689	0.955212	0.992218	0.945091	0.99758	1.035597	1.004143	0.948023	0.920677
20	0.976642	0.890428	0.956706	1.022834	0.904983	1.002705	0.976312	0.982839	0.968857	1.009737	0.947299	1.010252	0.979182	0.946982	0.865701	0.907692

Figure 3. Heatmap with the automatic classification of reports in terms of the semantic distance score (greener means that the SDG is more relevant for that report and redder means that it is less relevant)

Step 4 Manual inspection of the selected reports to check whether they contain information of the interactions between SDG 3 and SDG 5

Inclusion and exclusion criteria were applied successively to titles, executive summaries, and abstracts of the reports selected in Step 3 (**Table 1**). Full reports were obtained for those studies that appear to meet the criteria or where there was not enough information. We only included reports that refer to an evaluation of interventions related to SDG 3, SDG 5, and other SDGs. Thus, studies can be descriptive or analytic in nature but were included if they:

- were published in English, Spanish, French, or Portuguese;[6]
- were published after 2014;
- present evidence of linkages between SDG 3 and SDG 5 or any other SDGs; AND
- quality rating minimum "satisfactory" or equivalent (as rated by the respective agency)

[6] These languages matched the linguistic capacity of the team.

Review questions	Inclusion criteria
1.1 What are the interlinkages between SDG 3 and SDG 5 and other SDGs?	▪ Reports (evaluation/flagship) from UN Agencies alluding to the link between SDG 3 and SDG 5 and other SDGs (Quality rating minimum "satisfactory")
1.2 What are the interlinkages between SDG 3 and SDG 5 at target level?	▪ Document/report that showed an influence on other gender-relevant goals that can include: Quality Education (SDG 4), Clean Water and Sanitation (SDG 6), Decent work and economic growth (SDG 8), Sustainable Cities and Communities (SDG 11), Climate Action (SDG 13), and Peace, Justice, and Strong Institutions (SDG 16).
2. What are the important processes, contexts, and systemic factors influencing the observed interlinkages?	▪ Reports describing processes, contexts, and systemic factors influencing the observed interlinkages (Quality rating minimum "satisfactory")

Table 1. Inclusion criteria for the UN evaluation reports

Studies were excluded if they did not meet any one of the inclusion criteria.

Step 5 Final selection of the reports based on full-text inspection of SDG 3 and SDG 5 interaction

In this step, we selected 26 agencies, plus relevant UNDAF evaluations (**Table 2**). No evaluation reports were identified from UNAIDS and UNECA. The method used to obtain reports is shown in **Table 3**. The reports on the UNEG website were obtained using web scraping and manual downloading. As the website does not list all reports, we did a manual search across UN websites to supplement the UNEG reports database.

	Agencies + UNDAF	%
Downloaded manually from UN agencies websites	7	25.9
Requested from the UN Evaluation Office	2	7.4
Web scraping from UNEG website	7	25.9
Downloaded manually from UNEG website	11	40.7
Total	**27**	**100**

Table 3. Method used to obtain reports and number of agencies

N°	UN Agency	Abbreviation
1	Food and Agriculture Organization of the United Nations	FAO
2	International Labour Organization	ILO
3	Office of the United Nations High Commissioner for Human Rights	OHCHR
4	United Nations Development Programme	UNDP
5	United Nations Population Fund	UNFPA
6	Office of the United Nations High Commissioner for Refugees	UNHCR
7	United Nations Children's Fund	UNICEF
8	United Nations Entity for Gender Equality and the Empowerment of Women	UN Women
9	World Food Programme	WFP
10	World Health Organization	WHO
11	The United Nations Development Assistance Framework*	UNDAF
12	Global Environment Facility	GEF
13	International Organization for Migration	IOM
14	Office for the Coordination of Humanitarian Affairs	OCHA
15	Pan American Health Organization	PAHO
16	United Nations Human Settlements Programme Evaluation Office	UN-Habitat
17	United Nations Capital Development Fund	UNCDF
18	United Nations Economic Commission for Africa	UNECA
19	United Nations Economic Commission for Europe	UNECE
20	United Nations Economic Commission for Latin America and the Caribbean	ECLAC
21	United Nations Environment Programme	UNEP
22	United Nations Economic and Social Commission for Asia Pacific	UNESCAP
23	United Nations Educational, Scientific and Cultural Organization	UNESCO
24	United Nations Economic and Social Commission for Western Asia	ESCWA
25	United Nations Industrial Development Organization	UNIDO
26	United Nations Office on Drugs and Crime	UNODC
27	United Nations Relief and Works Agency for Palestine Refugees in the Near East	UNRWA

Table 2. UN agencies of the UNEG considered in the study (26 agencies + UNDAF)

4.1.2 Synthesis of the evidence

In synthesising evaluation reports, we used a standard data extraction template which embeds realist evaluation and systems thinking approaches (Marchal et al., 2012). To be specific, it is important to identify the associations between SDG 3 and SDG 5 with other SDGs and the contexts that bring about these interactions. **Table 4** illustrates SDGs and critical evaluation steps, which relate to the SDG interlinkages. The terms in the table are described below.

	Background	Outcomes	Mechanisms	Contexts
	Important background information of the report	1. What is the relationship between SDG 3 and SDG 5? 2. What is the relationship between SDG 5 and other SDGs?	1. What are intended (and unintended) interventions? 2. How were the proposed interventions implemented?	1. Which factors influence proposed interventions? (including sociocultural and geopolitical factors)
Report 1				
Report 2				
Report 3				
Report 4				

Table 4. Data extraction template for the UNEG evaluation reports

1. Outcomes

As a first step, we tried to identify the outcomes or effects of particular SDG 5 interventions to show whether the intended intervention is successful or not. It is important to understand how intended SDG 5 interventions impact SDG 3 and other SDGs. We have used the seven-point scale described in the Guide from the International Council for Science (Griggs et al., 2017) to report the interactions between SDG 5 and SDG 3 and other SDGs (**Figure 5**). We also looked for emergent outcomes, and those unintended that may cancel or support other targets/goals along the scale. Specifically, positive interlinkages were assigned +1 (enabling) or +2 (reinforcing) or +3 (indivisible). Likewise, negative interactions will be assigned -1 (constraining) or -2 (counteracting) or -3 (cancelling).

2. Mechanisms

We also looked for initially proposed interventions (including strategies) for SDG 5 and checked how and whether it was implemented as planned. Then, we identified if SDG 3 and other SDGs interventions have been implemented as per the proposed plan and how.

3. Contexts

Understanding contexts is crucial in systems thinking. Therefore, it was instrumental in identifying other sociocultural or geopolitical factors influencing the proposed SDG 5 interventions. This included the identification of other interventions targeting the SDG 5 in the project setting.

At the end of this stage, we aim to develop a conceptual model on how SDGs are interconnected. We used some existing systems thinking tools to present and explain how SDGs are interconnected within a particular system.

GOALS SCORING

INDIVISIBLE

The strongest form of positive interaction in which one objective is inextricably linked to the achievement of another. Reduction of air pollution (12.4) is indivisible from improved health and reducing non-communicable diseases (3.4).

+3

Outdoor and indoor air pollution is responsible for 7 million deaths annually, as well as respiratory and cardio-vascular disease but also increases in perinatal deaths. In 2012, ambient (outdoor) air pollution was responsible for 3 million deaths, representing 5.4% of the total deaths. Worldwide, ambient air pollution is estimated to cause about 25% of the lung cancer deaths. Major urban centers in low and middle-income countries are the most exposed to this burden. (WHO, 2016).

REINFORCING

One objective directly creates conditions that lead to the achievement of another objective. Increasing economic benefits from sustainable marine resources use (14.7) reinforces the creation of decent jobs and small enterprise in e.g. tourism (8.5 and 8.9)

+2

Sustainable and diversified strategies for using the marine resource base open up opportunities for small enterprises in fisheries or other harvesting and associated value-addition activities, as well as activities related to tourism. Many SIDS and LDCs that are rich in these resources also have poor, vulnerable and marginalized coastal communities.

ENABLING

The pursuit of one objective enables the achievement of another objective.Developing infrastructure for transport (9.1) enables participation of women in the work force and in political life (5.5)

+1

Affordable public transport promotes social inclusion, more equal access to different parts of the city, and enabling employment for marginalized groups. In many places, women do not have access to a car and depend on public transport, walking or bicycling to get around, to work places and to social or political activities (NCE, 2016; GSDR, 2016)

CONSISTENT

A neutral relationship where one objective does not significantly interact with another or where interactions are deemed to be neither positive nor negative. By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution (14.1) is consistent with target 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

0

There is no sifnificant interaction between the two targets.

CONSTRAINING

A mild form of negative interaction when the pursuit of one objective sets a condition or a constraint on the achievement of another.Conserving coastal areas (14.5) and development of safe **affordable housing and basic** services (11.1) may constrain each other

-1

Establishing protection areas in the coastal zone and expanding urbanization, infrastructure or transport risks spatial competition especially in densely populated areas. Integrated coastal zone management and marine spatial planning tools are readily available to mitigate spatial competition.

COUNTERACTING

The pursuit of one objective counteracts another objective. Ensuring access to safe, **nutritious and sufficient** food can counteract sustainable water withdrawals (6.4) and reduction of chemicals releases (12.4)

-2

Increasing productivity in agriculture is a necessary (but no sufficient) condition to improve food security. In many places, this might entail increased and/or better irrigation as well as increased use of agro-chemical inputs.

CANCELLING

The most negative interaction is where progress in one goal makes it impossible to reach another goal and possibly leads to a deteriorating state of the second. A choice has to be made between the two.Developing infrastructure (9.1) could be cancelling the reduction of degradation of natural habitats in terrestrial ecosystems (15.1)

-3

In underdeveloped regions, developing roads, dams, and power grids might be a high priority, although it will cause some unavoidable fragmentation of habitats and compromising the integrity of the natural ecosystem, leading to risks to biodiversity as well as social risks.

Figure 5. The seven-point scale of the International Council for Science (Griggs et al., 2017: 23)

This study considers SDGs studied by several disciplines. Therefore, we have used a transdisciplinary approach, working across and between disciplinary boundaries. We have used systems thinking tools such as causal loop diagrams (CLD) (Weinberg, 2001), to illustrate how SDG 5 connects with SDG 3 and other SDGs. CLD helps to identify patterns of interactions among different SDGs. As SDGs interact with each other within ever-changing and complex systems, it is important to understand the underlying "context" as this can explain why and how SDGs interact. Therefore, CLDs should be able to produce qualitative illustrations of mental models by helping explain the role of feedback loops within a given system (Peters, 2014).

We started with qualitative descriptions of how SDG 5 connects with SDG 3. In describing the direction of interactions, the seven-point scale **(Figure 5)**, described in Griggs et al. (2017), was used and produced feedback loops among different elements of the SDGs. Positive feedback loops will present if the interactions are enabling (+1), reinforcing (+2), or indivisible (+3). Similarly, negative feedback loops will be employed if interactions are constraining (-1), counteracting (-2) and cancelling (-3).

4.2 RESULTS

We reviewed 287 evaluation reports in which SDG 3 and SDG 5 were identified. The number of selected reports per agency was proportional to the number of reports with a focus on gender and health and the number of reports available. For example, for UN Women where many reports were relevant, we selected 92; for other agencies we tried to select a minimum of 10, unless there were fewer than 10 reports available.

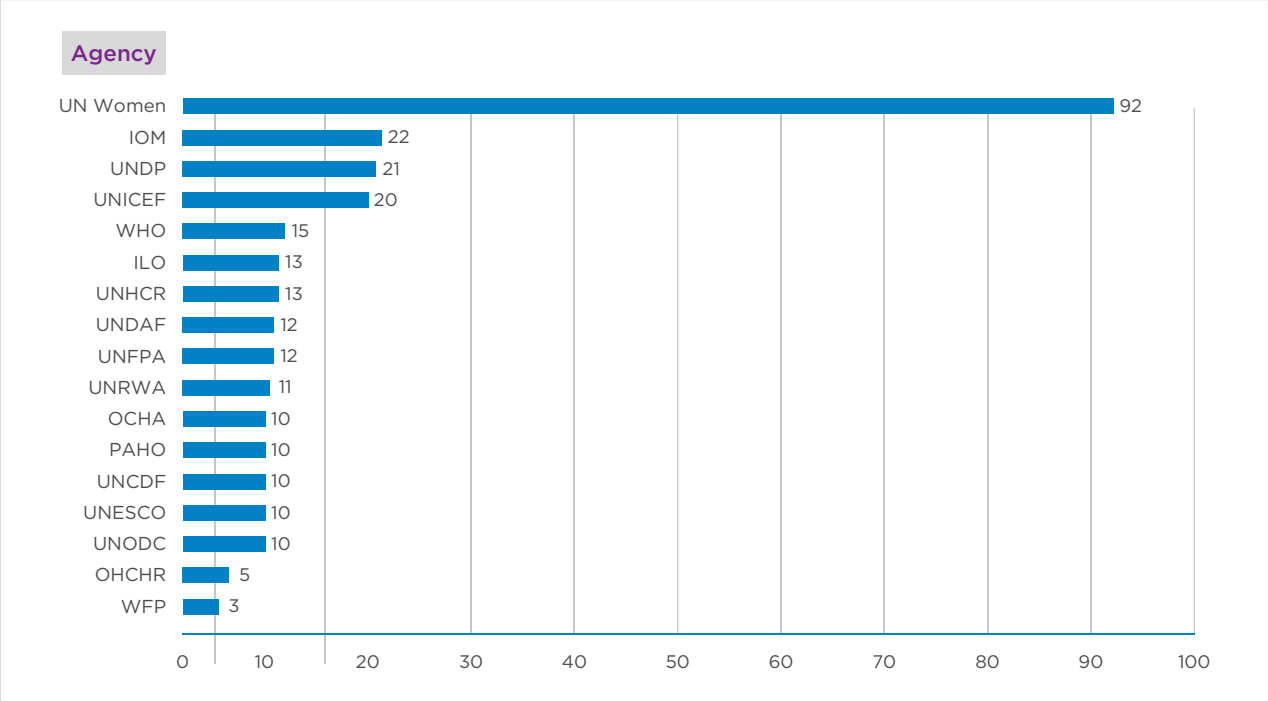

Figure 6. Number of evaluation reports with SDG5 and SDG3 selected for analysis (total 287)

The reports evaluate particular intervention(s) across 75 countries (mainly in the Global South) or include several global studies or are specific to certain regions (Americas, African Region) (**Figure 7**). The UNDAF report covered 12 countries: Chile, El Salvador, Guyana, Jordan, Liberia, Malawi, Mongolia, Morocco, Namibia, Nepal, Sudan, and the Togolese Republic.

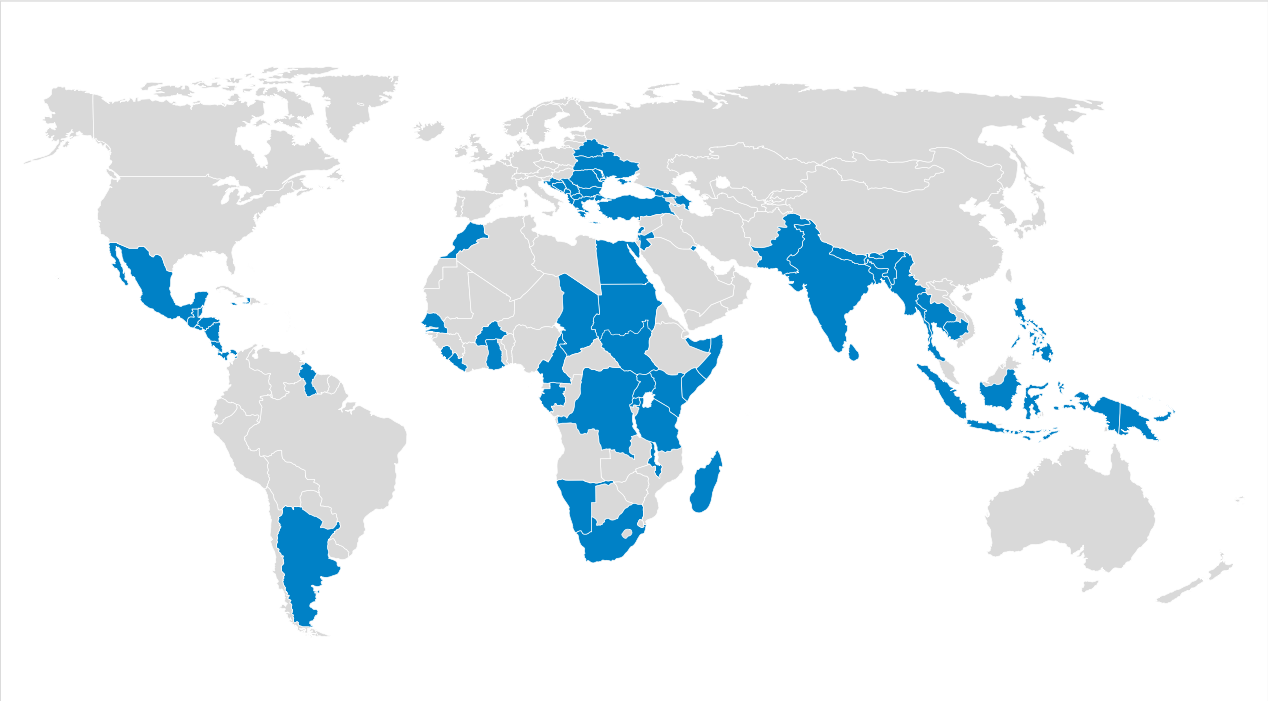

Figure 7. Countries considered in the 287 evaluation reports

4.2.1 Quantitative analysis of SDGs interlinkages

From those 287 reports reviewed, we have identified a total of 179 reports that met our inclusion criteria (Table 1) through manual inspection and thus, were included in the review (including 18 non-English evaluation reports). For each relevant report that focused on SDG 3 and SDG 5, we identified other SDGs that were also considered in the evaluations. The main results are highlighted in the next paragraphs.

4.2.1 Quantitative analysis of SDGs interlinkages

Based on the 179 reports and method used, the SDGs that appear more often associated with SDG 3 and SDG 5 are SDG 8, SDG 4, and SDG 10 (Reduced Inequalities). SDG 6 , SDG 11, and SDG 17 (Partnerships for the Goals) also appear often together with SDG 3 and SDG 5. We didn't find any evaluation linking SDG 3 and SDG 5 to SDG 7, SDG 12 (Responsible Consumption and Production), and SDG 14. One possible explanation is that these SDGs do not have specific gender targets (Morgan, 2020). However, indoor air pollution, a critical aspect of SDG 7, linked to unclean cooking fuels has caused 4.3 million premature deaths globally, with women and girls accounting for 60% of these deaths (James et al., 2020). Use of unclean cooking fuels has impacted the health of rural women in low- and middle-income countries. It has also driven women further into poverty due to increased health expenditures (Imram, 2020). Another explanation may be that these types of interventions (e,g, work on solar cookers, sustainable energy) were not evaluated or are not common in UN agencies. It could then be a gap in evaluation work, as opposed to SDG interlinkages.

The number of reports with each one of SDGs provides a general picture of the SDGs more commonly associated with SDG 3 and SDG 5 but it does not tell us which other SDGs tend to cluster together. To this aim, we carried out a multiple correspondence analysis (MCA) to analyse associations between SDGs and agencies to discover clusters of SDGs and agencies (**Figure 9**).

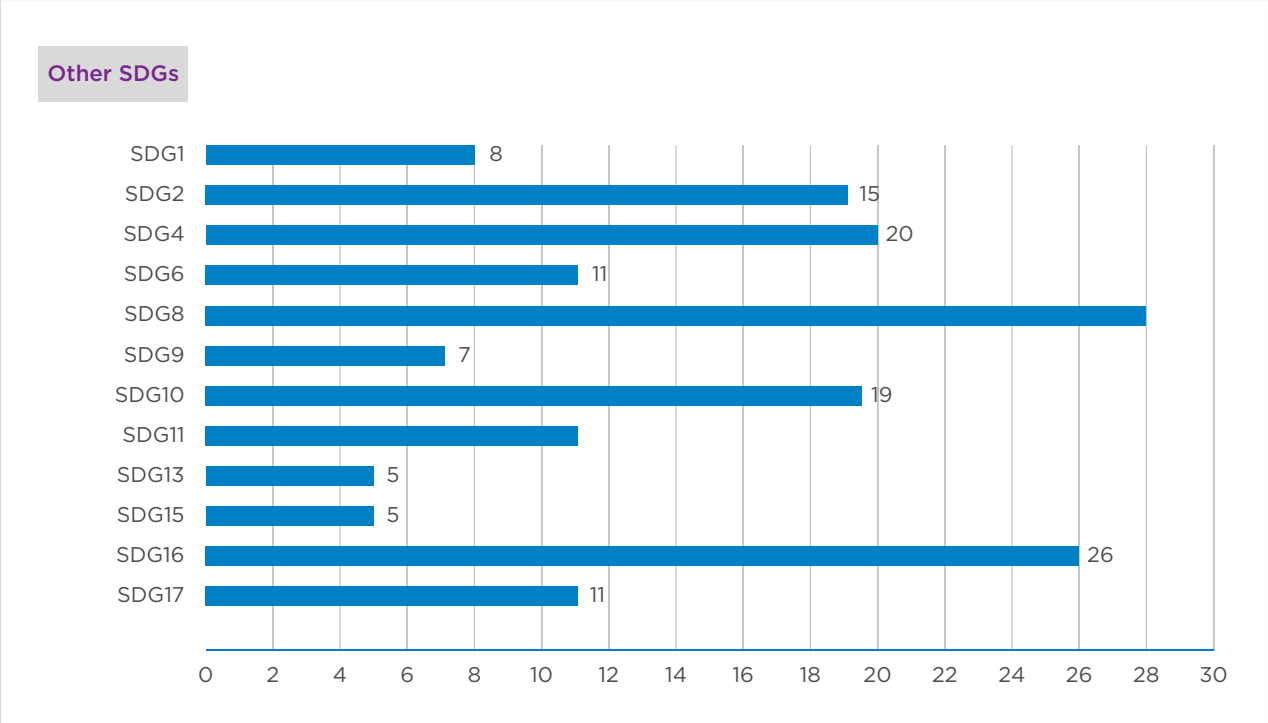

Figure 8. Number of reports with interlinkages of SDG3 and SDG5 with other SDGs (n=179)

An MCA is a descriptive technique that can be used to visually illustrate the relationships among the categories of variables in a two-dimensional space (Greenacre, 2007). The MCA projects categories with axes defined by latent dimensions that cannot be labeled. The interpretation of the graph is based on the distances between categories, based on weighted Euclidean distances.[7] Categories with similar profiles are grouped together: a closer distance of categories within the same quadrant demonstrates a stronger association, whereas categories that are further apart and in opposite quadrants present weaker associations. The values in the graph are tendencies and not frequencies or correlations.

We used only the SDGs that are most commonly referred to in combination to SDG 3 and SDG 5 (with frequencies over 10 in Figure 8) to perform a multiple correspondence analysis. The graph shows four quadrants defined by sets of SDGs and agencies. It is apparent that:

CLUSTERS OF SDGS

- SDGs tend to be associated in evaluations with SDG 3 and SDG 5 in pairs: SDG 16 and SDG 11; SDG 8 and SDG 4; SDG 6 and SDG 17.
- SDG 2 tends to be associated only with SDG 3 and SDG 5 but not with other SDGs.
- SDG 10 tends to be equally associated with other SDGs.

SDGS AND AGENCIES

- UNFPA is slightly more associated with evaluations with SDG 3, SDG 5, and SDG 16 and SDG 11
- UNICEF, OCHA, WHO, UNCDF, and WFP tend to focus on SDG 6 and SDG 17 in combination with SDG 3 and SDG 5.
- UN Women and UNDP tend to focus on evaluations with SDG 10, SDG 8, and SDG 11 in combination with SDG 3 and SDG 5.
- UNDAF country evaluations included tends to focus on evaluations with SDG 3, SDG 5, and SDG 2.
- UNODC tends to focus on evaluations with SDG 3, SDG 5, and SDG 10.

The axes are latent dimensions that can be defined as contrasts and SDGs that are in opposite quadrants do not tend to appear together in evaluation reports:

- SDG 2 does not tend to be linked with others, in particular SDG 8 and SDG 4.

- SDG 16 and SDG 11 do not tend to be linked with SDG 6 and SDG 17.

[7] https://www.sciencedirect.com/topics/mathematics/euclidean-distance

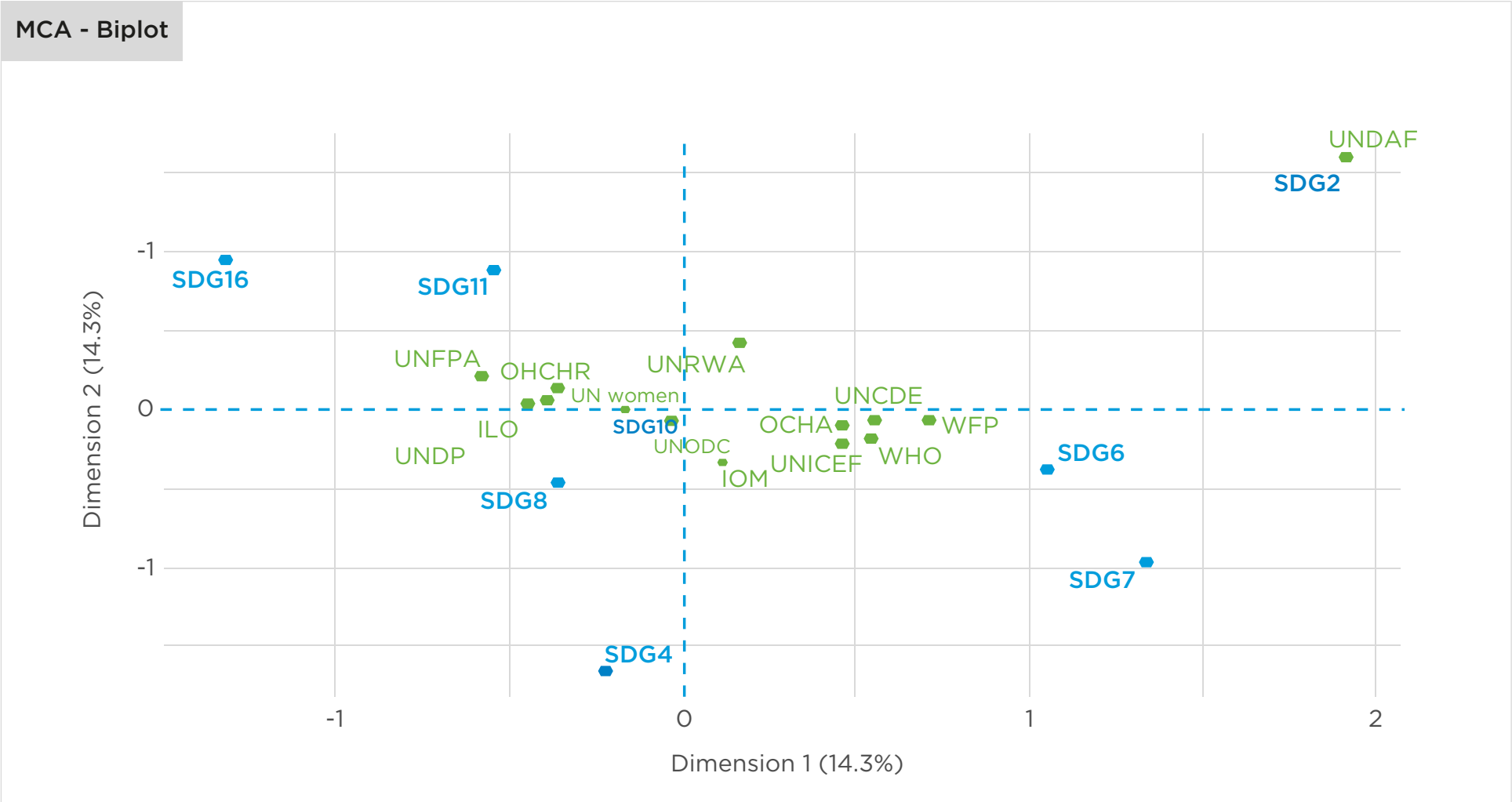

Figure 9. Multiple correspondence analysis between SDGs more linked to SDG 3 and SDG 5 and UN agencies

4.2.2 Qualitative analysis through conceptual models

To contextualise the analysis of the SDGs interlinkages with particular interventions, we performed a qualitative analysis of a sample of the reports. To ensure the depth of the analysis, we selected the reports that best illustrate the interlinkages of SDG 3 and SDG 5 with other SDGs, in a total of 70 reports (**Annex C**). We used specific data extraction framework (**Table 4** above), adapted from the realist evaluation framework that determines in which specific conditions the intervention works, why and how to help decision makers to assess whether interventions that proved successful in one setting can be expected to succeed in a different setting (Marchal et al, 2012).

We then synthesised the reports by grouping them into five key categories according to their focus of intervention: 1) gender-based violence (GBV); 2) gender-responsive planning, budgeting, and advocacy; 3) promotion of sexual and reproductive health rights (SRHR); 4) health and well-being; and 5) nutrition-related interventions. In doing so, we looked for recurrent patterns of interactions between SDG 5 and 3 and other SDGs (including targets) among different, included reports. After synthesising the reports in an intervention-focused approach, we re-examined the findings and analysed within our sample to identify interlinkages at goal levels. Therefore, the final step of the analysis looked at the results across all interventions at the goals level and identified how Goal-5 interlinked with Goal-3 and other sustainable development goals.

Gender-based violence (GBV)

In a total of 22 included reports (from IOM, UNICEF, UN WOMEN, UNRWA, and UNFPA) interventions focused on gender-based violence (GBV) SDG 5.2 (eliminate all forms of violence against women and girls, including domestic violence, trafficking, and exploitation) are found to be linked with other SDG 5 targets such as SDG 5.1 (end all forms of discrimination against women and girls), 5.3 (stop child marriage), 5.6 (universal access to SRHR) or 5A (give women equal rights to resources). The interventions are implemented in both normal and humanitarian settings across different continents. Eight other SDGs: SDGs 2, 3, 4, 8, 9 (Industry, Innovation and Infrastructure), 10, 11, and 16 are also linked with GBV interventions **(Figure 10**). Among them, SDG 11 (safe space or shelter) and SDG 8 (women's employment or job creations for women) reinforce GBV interventions. For instance, SDG 11 (safe space or shelter) is consistently reported as an important determinant in GBV interventions of UN Women, IOM, and UNICEF – either in humanitarian settings (Syrian refugees in Jordan, victims of people trafficking in Azerbaijan, South Sudan) or non-humanitarian settings (Bosnia-Herzegovina, China, Ethiopia, Egypt). Availability of safe shelter or space (SDG 11) again reinforces SDG 3 relevant activities as victims felt safe to report cases and seek health care (sexual and reproductive health, psychosocial or mental health) (SDG 3.3, 3.4, 3.7, 3.8).

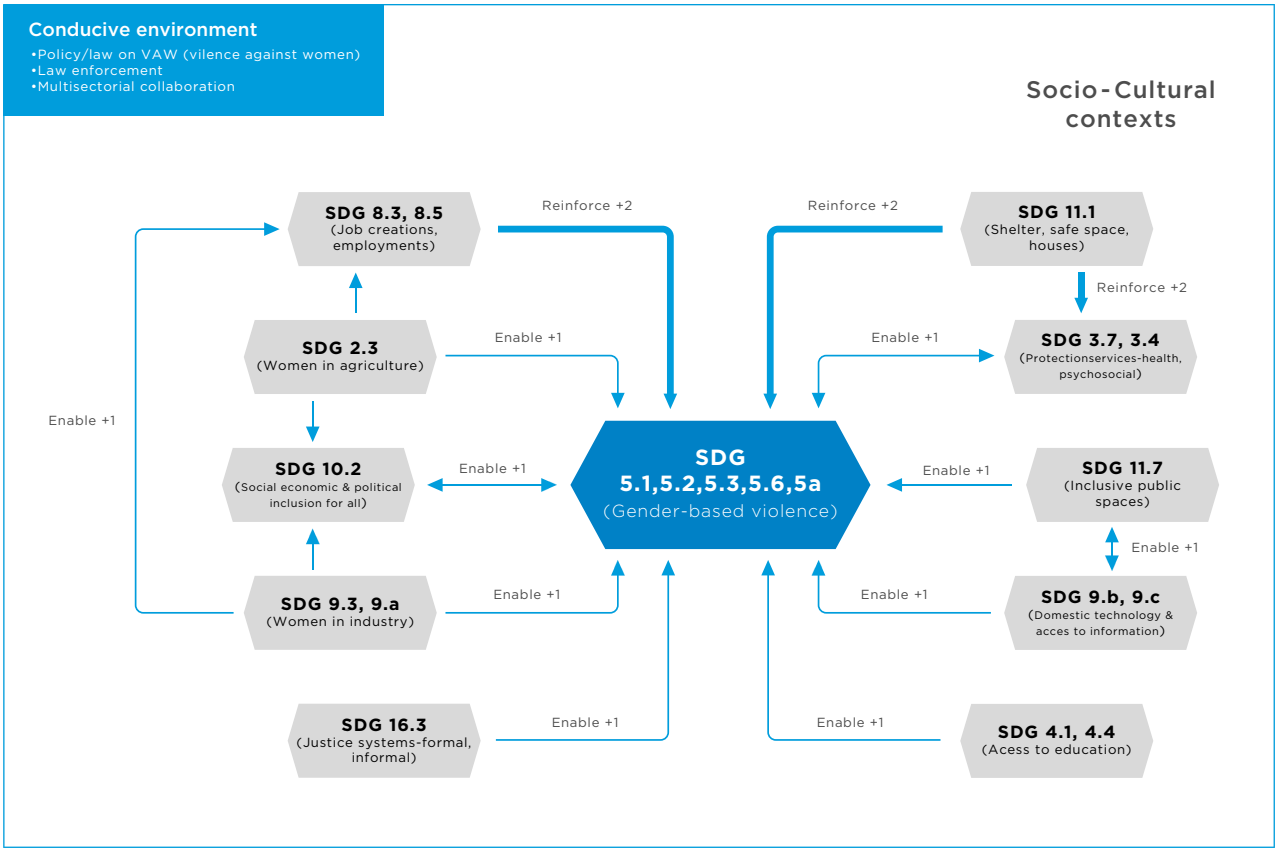

Figure 10. Interventions focused on gender-based violence - 22 reports

A UN Women's project on GBV supported law enforcement structures in Georgia (Domestic Violence Council and Ministry of Corrections and Ministry of Justice) to introduce/pilot GPS Ankle Bracelets for effective monitoring of repeat offenders of domestic violence to help ensure that restrictive orders were adhered to (SDG 9.b, 9c domestic technology and access to information) (UNW-297). This intervention is aimed at ending violence against women (VAW) efforts while also promoting the availability of safe and inclusive public spaces and urban living outcomes (SDG 11.7). Similar use of technology is reported in another UN Women's project in 14 Pacific Island countries where women's access to technology has improved along with GBV interventions (provision of mobile phones to access a GBV helpline) (UNW-164). A Safe Cities model piloted by UN Women in Egypt within the Greater Cairo area and in the urban areas of Giza and Qalyubiya aimed to improve the quality of life for Egyptians through the creation of safe neighbourhoods and communities that are free from violence against women and girls (UNW-261). Women-friendly technology is also reported to be used in Ethiopia to increase girls' access to information and services for SRH, HIV/AIDS, and GBV (UNW-117).

Another SDG which reinforces ending GBV interventions is SDG 8: SDG 8.3 (policies supporting decent job creations) and SDG 8.5 (women's employment) activities. Having decent jobs made victims less vulnerable to be abused within the family or their society as women become economically and socially independent. An example can be seen in a UN Women's project in Malawi, where the project recognises the importance of economic empowerment for improving women's living standards, thus reducing their vulnerability to violence

(UNW-267). In the same project, rural women farmers and cooperative members received training in financial, business, and value addition skills to support their economic empowerment, linking to SDG 10.2 (promotes social, economic and political inclusion for all), SDG 9.3, 9.a (women in industry) and SDG 2.3 (women workers in the agriculture sector). In another UN Women project in Ethiopia, such entrepreneurial training and women-friendly technologies allowed women to run successful businesses, with other women benefiting from this as women repay their loans and money keeps revolving (UNW-167).

Education (SDG 4) is an important determinant as well as an outcome of ending GBV interventions. A UNICEF project in South Sudan focuses on prevention and risk mitigation where they raise awareness on gender-based violence through peacebuilding, education, and advocacy (UNEG-06080). In a UN Women project in Malawi, education (SDG 4) is the outcome of an ending GBV intervention as more girls have access to quality education without the risk of GBV (UNW-267). The project also increased girls' confidence and led to improved school grades (SDG 4.1, 4.4).

A fair justice system (formal and informal) (SDG 16.3) is an important determinant to end GBV. This is highlighted in a UNICEF project in South Sudan where the project supported the Government to develop a legal and policy framework for GBV as well as to endorse and implement the standard operating procedures for GBV (UNEG-06080).

Reports highlighted how instrumental enabling environments are to end GBV. These include 1) presence of a policy/law regarding GBV, 2) enforcement of the law, 3) collaborative, multisectoral environment and 4) social norms and gender roles. Reports highlighted the importance of social norms and perceptions on domestic violence and intimate partner abuse as it is mostly perceived by national authorities as a family matter.

Gender-responsive planning, budgeting and advocacy

Of a total of 33 included reports (from ILO, IOM, UNDAF, UNESCO, UNFPA, UN WOMEN, UNODC, UNRWA), interventions which promote gender equality mostly focus on gender-responsive national planning and budgeting, advocate gender equality to policymakers by inputs into laws, policies or strategies, or gender awareness-raising to the general public. Gender-responsive planning (SDG 5.-5.6, 5.a-c) are reported to promote achieving nine other SDGs, namely SDG 2, SDG 4, SDG 6 (Clean Water and Sanitation), SDG 8, SDG 10, SDG 11, SDG 13 and SDG 16 (**Figure 11**).

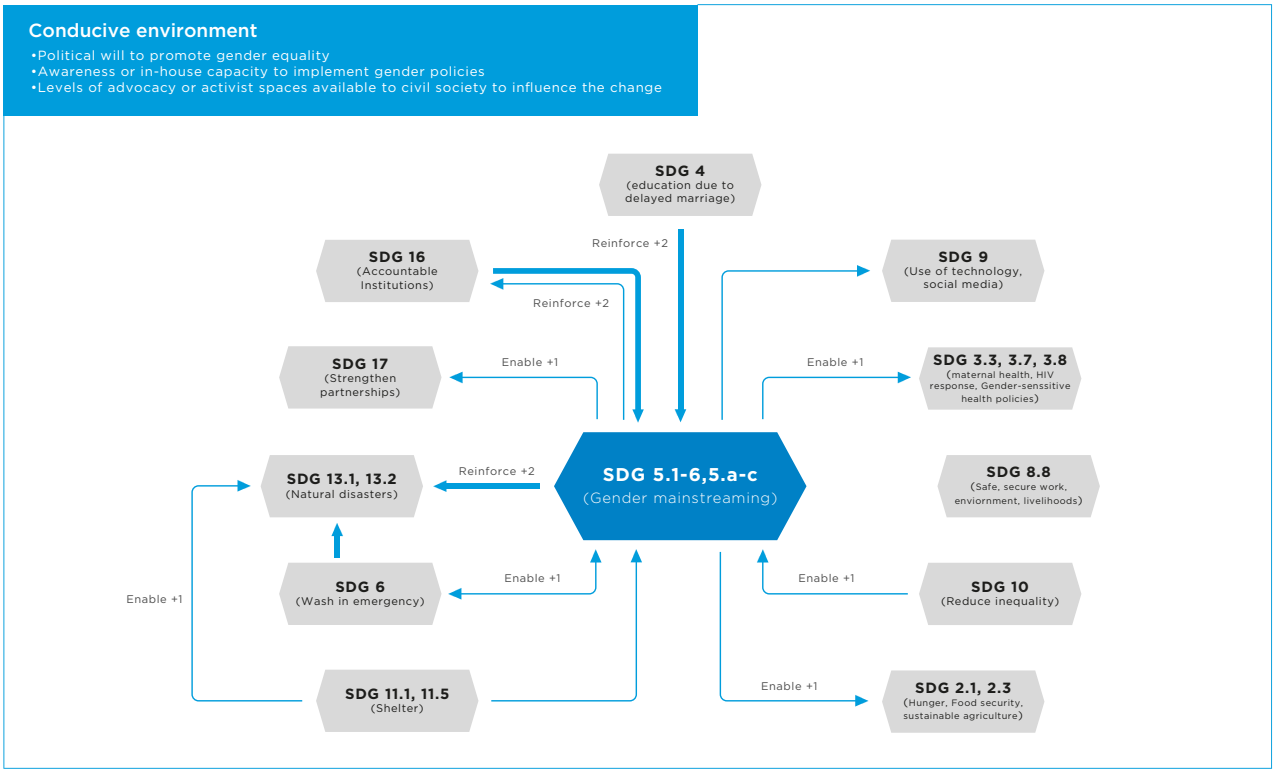

Figure 11. Interventions focused on gender-responsive planning, budgeting and advocacy - 33 reports

Among them, safe water and sanitation in an emergency (SDG 6) and resilience to natural disasters (SDG 13.1) are reinforced by gender mainstreaming efforts. For instance, women in Bangladesh have been trained as agents for change for disaster risk reduction and management through viable livelihood options in cyclone, flood, and drought-prone communities (UNW-155.DC1-10). In that project, women worked towards disaster preparedness including protection from storms/cyclones (safe shelter SDG 11), and ensured availability and sustainable management of water and sanitation (SDG 6). Gender mainstreaming in disaster preparedness has helped the project achieve three other SDG goals and targets such as SDG 6 (safe water and sanitation during emergencies), SDG 13.1, 13.2 (able to take urgent actions to combat climate change and its impacts) and SDG 11.1, 11.5 (ability to identify safe shelters during a natural disaster) (UNW-155.DC1-10). Similar findings are reported in another South Asian country, Pakistan, where UN Women has promoted gender-responsive disaster risk reduction in complex emergencies and multi-hazard situations (UNW-155. DC1-10).

Gender-responsive planning (SDG 5.1-5.6, 5a-c) has enabled SDG 3 (3.3: HIV/AIDS and gender-responsive health policies), SDG 16 and SDG 17. A significant example can be seen in UN Women's global contribution to "governance and national planning" (GNP), which reflects accountability for gender equality between 2012 to 2017 (UNW-293). In HIV/AIDS, UN Women's global advocacy efforts have supported and bolstered SDG commitments by bringing strong gender analysis to global HIV/AIDS discussions. Over the course of 2012-2017, UN Women's GNP operations were conducted across 76 countries, 74 of which focused on GNP specifically, while 35 included targeted HIV/AIDS programmes (UNW-293). Through its work with UNAIDS cosponsors, the

South Africa Development Community (SADC) and international and national civil society stakeholders, UN Women has strategically highlighted the gender dimensions of the HIV/ AIDS epidemic, supporting the agreement of Commission on the State of Women (CSW) Resolution 60/2 on Women, the Girl Child, and HIV/ AIDS and the UN Political Declaration on HIV/AIDS. Together, these efforts articulate critical actions for Member States to address high levels of HIV infection among women, especially young women, and promote gender equality more broadly (UNW-293). These agreements map out an agenda for action to reduce HIV prevalence among women and girls, making progress towards SDG target 3.3 by strengthening institutional capacities and accountability (SDG 16) and strengthening partnership (SDG 17) to contribute towards SDG 5 on achieving gender equality. As with the broader GNP work, UN Women has supported and enabled national governments to become key drivers of these processes to align its global advocacy with national priorities (UNW-293).

In such gender-responsive planning programmes, knowledge and skills of national partners in gender analysis (particularly in planning and budgeting) were enhanced. National women's machineries and other gender equality advocates have also acquired the knowledge, skills and tools to effectively participate in decision-making processes (UNW-293). As a result, relevant governments (Kenya, Rwanda, and Thailand) have allocated increasing dedicated budgets to support gender-specific commitments, using key indicators to cost and track progress (UNW-293). In creating such a space for gender responsiveness (SDG 5) to connect between national HIV/AIDS responses (SDG 3.3), partnerships (SDG 17) were established with relevant local (including civil society organisations), regional, and international bodies. It is important to note contextual factors which influenced the GNP's results, such as political will to promote gender equality; awareness or in-house capacity to implement gender policies; and levels of advocacy or activist spaces available to civil society to influence change (UNW-293).

Other examples of gender-responsive planning (SDG 5.1-5.6, 5a-c), which enabled SDG 3 (3.3, 3.7, 3.8. maternal health, sexual and reproductive health services including HIV/AIDS), SDG 16 and SDG 17 (strengthen global partnership), have been reported in both normal and humanitarian settings (UNW-170, 248, 267, 181. UNDAF-0001). The UN in Malawi has pursued a twin-track strategy of gender mainstreaming and targeted interventions to advance gender equality (UNDAF-0001). The evaluation reported positive results across SDG 3 outcomes such as newborn deaths, skilled birth attendance rates, malnutrition and access to HIV/AIDS prevention and treatment services. The project initiatives which focused specifically on women or the promotion of gender equality have been important in reducing existing disparities, while gender mainstreaming across outcomes supported potential assessment of the implications for women and men of all planned actions, policies, or programmes (UNDAF-0001). The other UN Women experience from the implementation of the National Action Plan for improving and promoting gender equality in the Republic of Serbia also indicate that well-established partnerships (SDG 17) yield synergies and produce better results (UNW-170). This can be seen from the establishment of the Women's Parliamentary Network, the Women's Platform, the partnership between the business sector and gender equality mechanisms. These types of multi-stakeholder and multisectoral partnerships bring new insights, perspectives, and modes for cooperation (SDG 16, 17).
The engagement of men and boys for gender equality and women's empowerment has been central to gender

mainstreaming programmes at both the national and community level. Examples can be seen in the UN Women's work in Lebanon, Morocco, and Palestine, working with its partners to identify and engage men and boys (both key influencers) and those in the broader community, through a range of approaches. These approaches include redefining masculinity and femininity through art, positive deviance, and promoting psychosocial well being (UNW-270). The intervention in Palestine has shown that multiple modalities implemented by community-based and national grantees successfully affected change on the individual level. For instance, there has been increased involvement of fathers in their daughters' schooling (SDG 4). Therefore, gender-responsive planning and gender mainstreaming in development projects has enabled SDG 4 (increased girls education), delayed girls' age of marriage, increased girls access to quality education without the risk of gender-based violence, increased girls' confidence, leading to higher performance in schools (UNW-267 and UNW-270).

On the other hand, UNESCO's work in promoting Information and communication technologies (ICTs) in education (SDG 4, 9.c) has been proven to enhance the quality and relevance of learning and to strengthen inclusion. Technology has facilitated wider access to education and bridged learning divides, enhanced gender equality and inclusion, and facilitated the development of digital skills. UNESCO's work of promoting ICT in education for women and girls has improved four other SDGs – SDG 5, 3 ,2, 17 – in addition to SDG 4 (education) (UNESCO-010). With rapidly changing technologies and work processes, developments of new pedagogies are required, and ICT plays an important role in learning and teaching in today's world. Therefore, in that project, UNESCO increased mobile phone literacy (SDG 4.4) to empower young people by systematically applying gender lenses (SDG 5.6) to reach young people on issues such as HIV/AIDS (SDG 3.3), gender-based violence (SDG 5.1,5.2) and nutrition (SDG 2.2). Furthermore, UNESCO works in partnership with tech companies, other UN agencies, local and international organisations, to promote SDG 17.

The presence of accountable and inclusive institutions (SDG 16) is again reported to be an important determinant in achieving results in gender-responsive planning where multi-stakeholders' involvement is crucial as consistent gender mainstreaming requires ownership and sustainability (IOM-032).
Gender-responsive planning which considers socio-economic aspects such as training community women and girls has enhanced financial independence, livelihood, and employability of women in society (SDG 8.8). For instance, the UN Women project in Egypt has improved women's entrepreneurship and business development (SDG 8.3, 8.5) as marginalised women were targeted for economic empowerment intervention (UNW-261). These interventions have led to enhanced social status and greater independence of women. In other UN Women projects, gender-responsive planning not only improved women's financial independence, livelihood, and employability (SDG 8.8), but also improved food security and reduced hunger (SDG 2.1, 2.3) through sustainable agriculture as well as reduced economic inequality (SDG 10) (UNW-170, 248, 267. UNDAF-0001).

Similarly, another UN Women's joint project with FAO in Jordan promoted rural women's leadership in agriculture (SDG 5, 8) and national advocacy as well as women's food security (SDG 2) and their enhanced participation in advocacy associated with the agricultural sector (SDG 2,8) (UNW-206). The project made a substantial contribution at an individual, household, family, and community level to gender equality and women's empowerment, with women reporting increased assertiveness and interest in women's rights. Beneficiaries reported increasing levels of empowerment and examples therein as well as increasing levels of

independence afforded to them by their families and communities after participation in the project. Women were more involved in income-generating activities (SDG 8) and community-level decision-making; more able to exercise their rights; and reported improved self-confidence and social status (SDG 5) following involvement in the project (UNW-206). Furthermore, female members of vulnerable families received training on sustainable agricultural skills (SDG 8), nutrition (SDG 2, 3), and food provision, leading to increased food security and nutrition among rural and refugee women and their families, promoting social cohesion (SDG 10). These skills training also empowered women to be more involved in health decision-making at the household level, therefore leading to improved health outcomes (SDG 3) for the whole community and contributing to women's social empowerment. Furthermore, the project included a training programme, using technology and social media (SDG 9), which introduced women (SDG 5.b) to the concept of climate change (SDG 13) and environmentally friendly agricultural practices like improved conservation of water (SDG 6) (UNW-206).

Similar findings are reported in another joint programme of UN Women, FAO, and ILO in three conflict-affected districts in Nepal, where gender is mainstreamed in livelihoods, economic assistance in agriculture, and non-agriculture settings for conflict-affected women (SDG 2, 8) (UNW-126). In that project, the ILO used its expertise in decent work and improving conditions to develop occupational safety and health (SDG 3) awareness, as well as income generation through enterprises and vocational skills training (SDG 8). On the other hand, the FAO led in agriculture and livestock raising (SDG 2) through its permanent agencies and existing partnerships with local government bodies. Furthermore, women received psychosocial counselling services though they do not always produce immediate results; 85% of beneficiaries who received counselling have recovered. Therefore, women no longer see themselves as combatants or victims, as they have become part of the community where development is more important for their wellbeing than continuing the mindset of conflict (SDG 5, 3). In another humanitarian setting in South Sudan, the UN Women country office supported the development of policies and legislation that has resulted in positive steps being taken toward gender-responsive planning by mainstreaming gender in the areas of governance and leadership (SDG 16), peace, security, and humanitarian response, women's economic empowerment (SDG 8), and prevention of violence against women and girls (SDG 5) (UNW-182). This has contributed to the Traditional Constitution (2016) instituting affirmative action of 25% women quota in all spheres, and increasing the number of women in the legislature to 35%.

The other form of gender-responsive planning can be found in different ILO decent work programmes (SDG 8), which support six other SDGs such as SDG 3, 5, 9, 10, 11, and 16. For instance, the ILO's decent work programme in the western Balkans supported the policies known as flexibility through security or flexicurity (ILO-422). Through flexicurity, occupational safety and health (SDG 3) of workers have been improved as ILO supported host governments on legislation, enforcement of rules, and training related to safety in workplaces. The programme also enables gender mainstreaming through collective bargaining, proposals for labour codes, and promoting women entrepreneurship (SDG 5). Additionally, the programme helped establish strong institutions (SDG 16) in implementing countries: Albania, Bosnia and Herzegovina, Montenegro, Serbia, and the former Yugoslav Republic of Macedonia (currently Republic of North Macedonia). Similarly, in Madagascar, the ILO's decent work programme facilitated the adoption and signing of a code of conduct in the tourism sector to combat commercial sexual exploitation of children (SDG 5, 3) (ILO-485). In Tanzania, the work programme facilitated sectoral adoption of work improvement in small enterprises (WISE) and raised

awareness on maternity protection (SDG 5,3) by the Ministry of Labour and Youth employment (ILO-485). Other examples from humanitarian settings can be found in the ILO's work programmes, which helped to draft occupational safety and health guidelines (SDG 5) for Syrian refugees and host populations in Jordan (ILO-481). These were achieved through job creation in partnership with other sectors (SDG 17) and infrastructure improvement (SDG 10). While operationalising those work programmes, the ILO mainstreamed gender, starting with a gender pay gap study and publicity work to raise awareness. Furthermore, the organisation advocated for the Government of Jordan to pass regulations to open the door for licensing home-based daycare centres so that women can work. Other advocacy work included the modification of national frameworks, which has gender discriminatory practices such as the firing of women based on pregnancy and family responsibilities. Furthermore, the work programme (SDG 8) enhances Small and Medium Enterprises (SME) productivity (SDG 9) and promotes skills for trade and employment (SDG 10) (ILO-481).

The other interlinkages between SDG 8, 3, and 5 can also be observed in ILO's work programmes in the lower Mekong Region (Cambodia, Laos, Thailand, Vietnam) (ILO-463). In those programmes, the ILO focused on work programmes (SDG 8) by addressing cross-cutting areas such as gender equality (SDG 5) and discrimination against vulnerable groups, including migrants and persons with HIV/AIDS (SDG 3). In Thailand, the ILO has supported advocacy for HIV/AIDS in workplaces (SDG 3.33.7 and 8), which involved representatives from employers' and workers' organisations together with the Thailand Business Coalition for AIDS. The advocacy initiatives resulted in the development of action plans and regulations to scale up workplace programmes, voluntary counselling and testing initiatives, codes of practice reflecting non-discrimination, gender equality and healthy work environment, and so on. Similar advocacy movements were conducted in Cambodia, involving the Cambodian Business Coalition on AIDS, which in turn piloted entertainment workplace programmes to test the implementation of the Regulation. In Cambodia and Vietnam, the programme helped develop new regulations on HIV, AIDS (SDG 3.3, 3.7) and occupational, safety and health (SDG 3) for entertainment workers (SDG 8), as well as a new protocol on health screening and HIV voluntary counselling and testing that included a revised procedure for pre-departure HIV testing for migrant workers (SDG 10).

In the Lao People's Democratic Republic, gender equality (SDG 5) was explicitly included in the ILO's work programme (SDG 8) through one of its outcomes, which was to support implementation of the Equal Remuneration Convention, 1951 (No. 100) and the Discrimination (Employment and Occupation) Convention, 1958 (No. 111) and to build gender mainstreaming capacities among female and male leaders, and include women leaders (SDG 5.5) in governance mechanisms. Despite the lack of evidence that this has been successfully done, the Labour Law, which was to be revised in line with international gender equality instruments, contains numerous new provisions with respect to equal pay, occupational safety and health (SDG 3), maternity benefits and protection, and prohibits discrimination in the hiring and firing of women due to pregnancy or maternity status (SDG 5). Among those successes, lack of attention to gender mainstreaming, lack of sex-disaggregated data, and low levels of attention among tripartite partners to gender dimensions or disabilities are key barriers to achieving gender-responsive planning in work programmes (ILO-463).

Sexual and reproductive health rights (SRHR)

Interventions promoting sexual and reproductive health rights/SRHR (SDG 5.2, 5.6, 5.a) interlink with eight other SDGs – SDG 1 (End poverty in all its forms everywhere), 3, 4, 8, 11, 13, 16, and 17 (**Figure 12**).

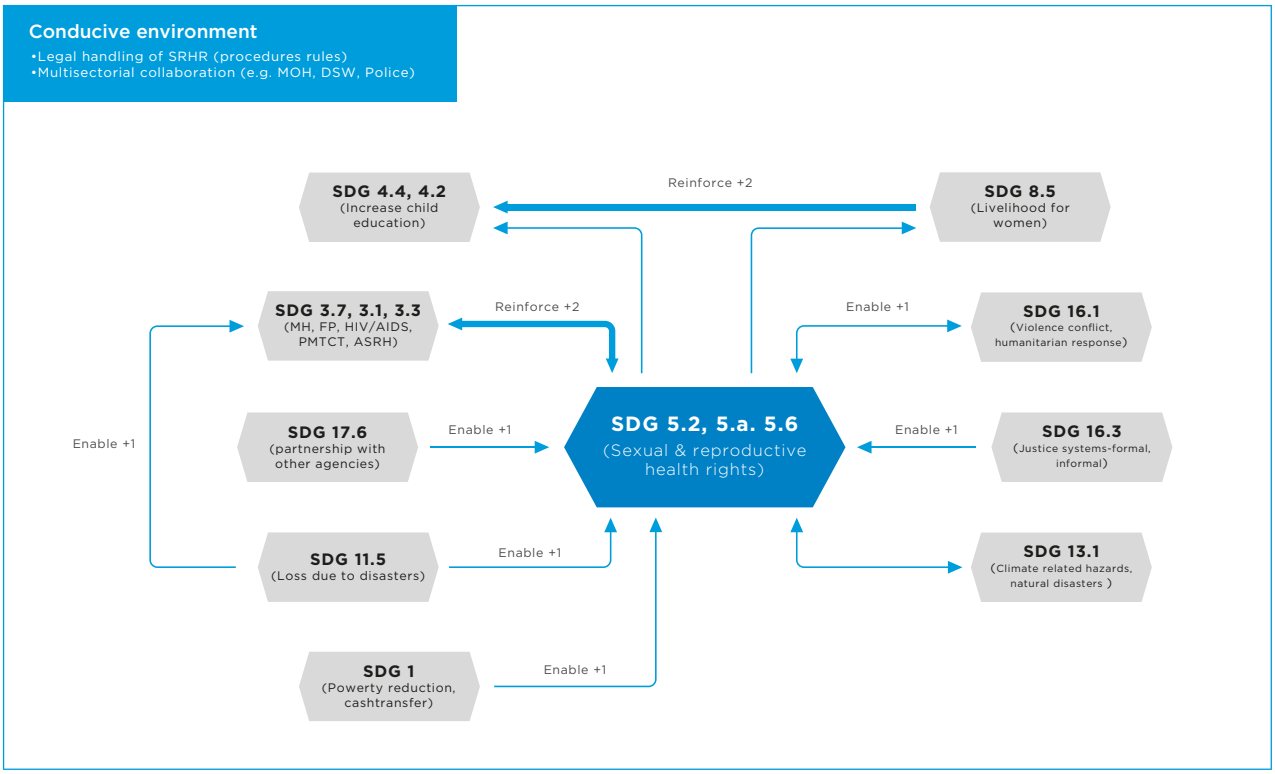

Figure 12. Interventions focused on sexual and reproductive health rights (SRHR) - 4 reports

In the four reports analysed (from UN Women and UNFPA), SDG 3.1, 3.3, 3.7 (maternal health, HIV/AIDS, sexual and reproductive health) related activities reinforce SRHR efforts as it helps advocacy efforts to improve legal frameworks and gender mainstreaming in emergencies (UNFPA-199). A UNFPA project in Myanmar has mainstreamed gender in humanitarian response while reaching out to beneficiaries through health service provision on maternal, sexual, and reproductive health. Similarly, although health was not the primary target outcome of a UN project in Egypt, the interventions on rights (SDG 5) and livelihood (SDG 8.5) directly benefited the health and wellbeing (SDG 3) of families of the women involved due to enhanced leadership roles within the household and society (UNW-230). In the same project in Egypt, programme results highlighted how the lives of beneficiaries have changed as they were able to run businesses and improve their families' financial conditions, increase their income, prove themselves, and become useful members in their communities. This economic empowerment increased women's sense of leadership and opened the door for them to participate in public life and engage civically in their communities, because women's economic autonomy makes them feel strong, able to make decisions, and capable of having an active public life free from the domination and control of their husbands, fathers or siblings (UNW-230).

The SRHR interventions not only increased livelihoods for women (SDG 8.5), but improved education for children (SDG 4.1, 4.2) as women spent their incomes generated through the project on children's education (UNW-230). The example is reported in a UN Women project in Egypt where the women spent their incomes enrolling children in nurseries or daycare centres or covering the costs of educational material (e.g. school books) (UNW-230). Furthermore, the involvement of the women in business ventures (SDG 8.5) led some fathers to become more involved in assisting their children with school work, as they witnessed their wives being more involved in supporting the family expenses (UNW-230). A comprehensive and holistic approach was used in implementing the programme to support women's empowerment at individual, household, and community levels. The project highlights that the activities women are engaged in not only have a direct impact on their economic status (SDG 8), but also affect the health (SDG 3), education (SDG 4), and social circumstances of the family and the community in general. Women's roles in their families were enhanced as they began to contribute to household income and expenses. Women's increased economic participation has also resulted in social benefits, including increased self-confidence (SDG 5) and a sense of self-worth, independence, and the ability to make decisions in their households. This also consequently improved their husbands' attitudes towards them, as they became more understanding, more cooperative, and more likely to listen to their wives' opinions and share their problems with them. Changes in the attitudes and the behaviour of not only the women but also their spouses and their entire family and community members are considered significant. Women stressed the need to engage men, conducting more awareness raising and outreach to them, which explains the economic and social benefits of participation in the economic interventions, as well as women's right to participate (UNW-230).

In a humanitarian setting, the challenges with livelihoods are mitigated with cash-transfer activities to reduce poverty (SDG 1), where UNFPA supported the Government of the Philippines in humanitarian responses (UNFPA-0223). In natural disasters and conflict-affected settings, SDG 11.5 (loss due to disasters including water-related disasters) and SDG 13.1 (climate-related hazards, natural disasters) are important enablers in achieving the outcomes of SRHR interventions (UNFPA-0223, UNFPA-199). This, in turn, enables the SDG 3 related outcomes as disaster-affected populations, including women, have increased access to health services. In those settings, good partnership with other agencies (SDG 17.6) has proved to be instrumental in achieving SRHR efforts. Furthermore, the presence of a functioning justice system (formal and informal) (SDG 16.3) supports SRHR efforts as the outcomes are dependent on the procedures or rules that handled SRHR cases.

Evaluation reports highlight the importance of an enabling environment which facilitates SRHR interventions. One of the most important enablers is multisectoral collaboration between the Ministry of Health (MOH), the Ministry of Social Welfare, the police, and the justice system.

Health and well-being

Among 8 included reports (from IOM, OCHA, UNDAF, UNICEF, and WHO), the interventions targeted to improve SDG 3 centred around providing essential health services in humanitarian settings or maternal, newborn, and child health services (MNCH) or prevention of communicable diseases such as waterborne diseases or HIV/AIDS (SDG 3.1, 3.2, 3.7, 3.8, 3.b or 3.c). In efforts to achieve SDG 3 related targets, the results showed interlinkages with seven other SDGs and targets: SDG 4, 5, 6.1, 8.5, 9.b, 10.2, and 16.9 (**Figure 13**). For instance, the MNCH targeted interventions of an IOM project that reinforced gender mainstreaming efforts, SDG 5 in addition to intended maternal and child health outcomes (IOM-051).

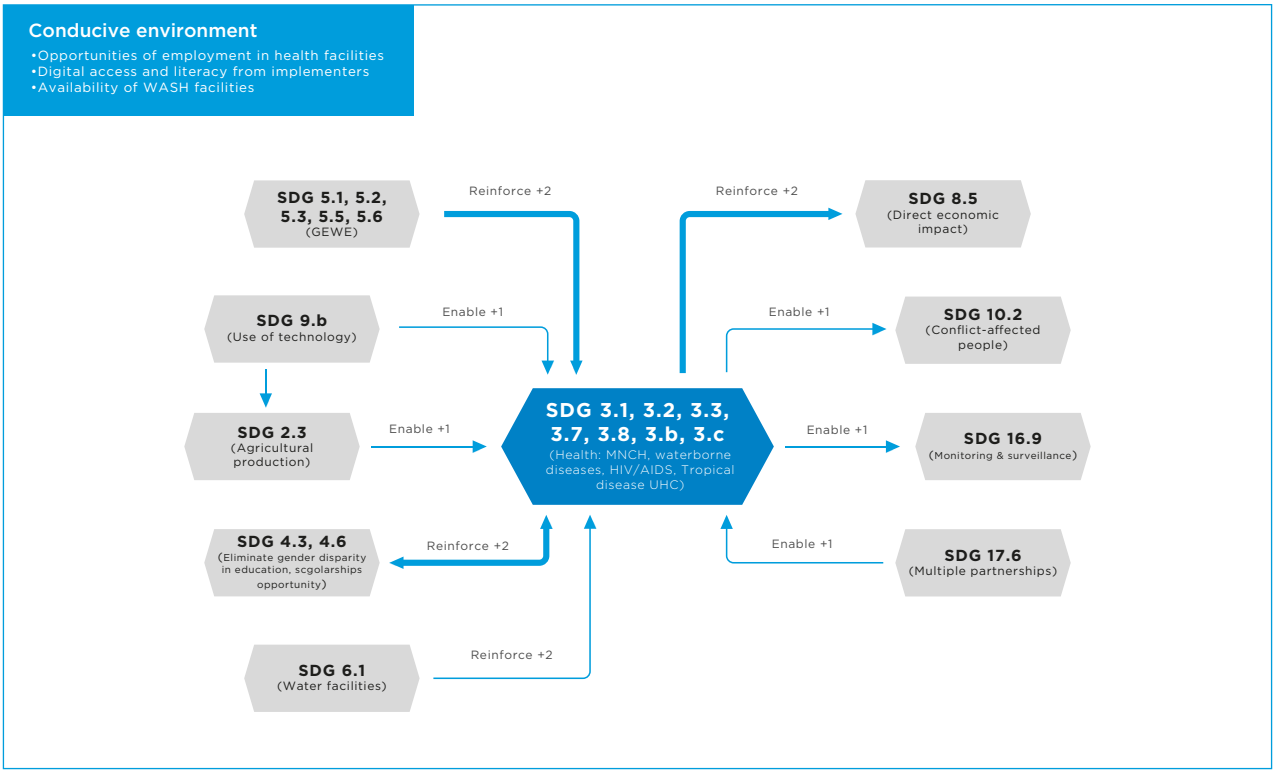

Figure 13. Interventions focused on health and wellbeing - 8 reports

In other settings, the lives of adolescent and teenage girls living with HIV/AIDS have improved through health education-oriented sports activities (SDG 4.3). This can be seen in UNICEF's projects in Namibia and Eswatini, where life skills and health lifestyle activities of adolescents and youth have improved (UNEG-05795, 08258). Beneficiary girls from the UNICEF Namibia project reported that the project changed their lives and helped them develop a positive attitude to their school work (SDG 4) (UNEG-05795). The project helped them to become team players, pursue their dreams, and prevented them from getting involved in risky behaviour (SDG 3). Most importantly, the project helped them to develop self-confidence, self-esteem, self-worth, self-efficacy, and leadership skills (SDG 5). Similarly, in another UNICEF's project in Eswatini, a teen club programme addressed the health and psychosocial needs of adolescents living with HIV (SDG 3.3,3.7) (UNEG-08258). By applying gender-specific strategies (SDG 5), the project helped achieve adherence and retention in care and better health outcomes for adolescents (SDG 3), and increased their self-confidence and self-efficacy, translating into better performance at school (SDG 4).

Similarly, the WHO's work in Southeast Asia strengthened education courses in areas such as midwifery, thereby improving educational opportunities (SDG 4.3), increasing health workforce capacity (SDG 3.c), and improving maternal health outcomes (SDG 3.1, 5.6) (WHO-0012). In another WHO project in 20 African countries, beyond the main outcome of the programme (reducing the prevalence of onchocerciasis - relating to SDG 3) the expansion of the health workforce (particularly of women) (SDG 3.c) has reduced gender disparity in education (SDG 4.3,4.4) (WHO-0011). A gender mainstreaming element was added to that programme in

2009, particularly related to health workforce capacity building, community engagement, and increasing women's educational opportunities. These included an intentional selection of more women to become community drug distributors. More women were supported to complete Master's degrees to increase the number of women in science, technology, engineering and maths (STEM) and research (SDG 4.3,4.b). As the degrees sponsored were all in public health-related subjects, those involved continued to provide services to health ministries and facilities beyond the scope of the programme. Therefore, increased educational opportunities for women (SDG 4, 5) provided by the programme had long-term positive consequences for national health (SDG 3). However, it is unclear whether that onchocerciasis prevention and control element addressed gender barriers (outside of the increased capacity of the health workforce and increased engagement of women) as the only evidence of this is that sex-disaggregated data of patients and distributors was introduced in 2007.

Increase in higher education opportunities specifically targeting female public health workers not only reduced gender disparity in higher education (SDG 4.6), but improved women's economic empowerment (SDG 5, SDG 8) by achieving national health outcomes (SDG 3) (WHO-0011). In the same project, the WHO's effort in eliminating onchocerciasis has direct economic consequences (SDG 8). It has reduced the prevalence of blindness (SDG 3) as the programme has allowed community members to return to agriculture work (SDG 2.3) that was previously abandoned. The programme implementation was also supported by technology (SDG 9.b) (computers to assist timely data collection and surveillance reporting).

To achieve the results of SDG 3 interventions, SDG 6.1 water, sanitation and hygiene (WASH) facilities are indispensable. Therefore, IOM and OCHA integrated WASH components in their health responses in South Sudan so that increased access to WASH services has significantly reduced waterborne diseases, including cholera (IOM-051, OCHA-016).

The WHO also supported the health of migrant people (SDG 10) through research related to migrant mothers' access to antenatal care in Myanmar (WHO-0012). In the same project, the WHO's assistance has improved institutional capacity (SDG 16) through health monitoring and surveillance, including birth and death registration in partnerships with other agencies (SDG 17) in Nepal, Sri Lanka, and Bangladesh.

Nutrition-related interventions

Interventions targeted to reduce nutrition-related problems such as malnutrition or hunger (SDG 2-2.1, 2.2) interlink with nine other SDGs: SDG 3, 4, 5, 6, 8, 9, 13, 15, 17 (**Figure 14**). SDG 2.1, 2.2 reinforces SDG 3.1, 3.3, 3.7, that is, maternal, newborn and child health aspects of SDG 3. For instance, in a WHO project on accelerating nutrition in 11 sub-Saharan countries, vulnerable groups were targeted for nutrition interventions as the project sought to improve nutritional outcomes of pregnant and lactating women and young children (WHO-007). While women's nutritional needs (SDG 2) were considered in the project design, the project mobilised men so that they became aware of the nutritional equity within their families such as reducing discriminatory attitudes towards women (SDG 5.1,5a). Incorporating men's social role in the community, the project has sensitised local secular and religious leaders to get

their endorsement in nutritional implementations in Senegal. Although the participation of male leaders did not appear to be a formal action step in the implementation phase, health workers indicated the necessity of an endorsement from local leaders to perform surveillance activities successfully. These practices demonstrate both a clear appropriation of project activities by local actors and community members and a strategic approach to addressing inherent gender bias (SDG 5) for nutrition (SDG 2, 3) in vulnerable areas. These anecdotes are supported by the heads of medical centres who report that the surveillance system provides a fast mechanism for identifying interventions to address cultural and behavioural practices, which may be adversely affecting the nutrition of the vulnerable groups targeted by the project (WHO-0007). As a result, the project not only improved the nutrition outcomes for women (SDG 2,3), but helped empower them socially (SDG 5). The project also established a mobile application with nutritional information to overcome the barrier of limited internet access as the application was developed to deliver content without the need for internet connection (SDG 9.c).

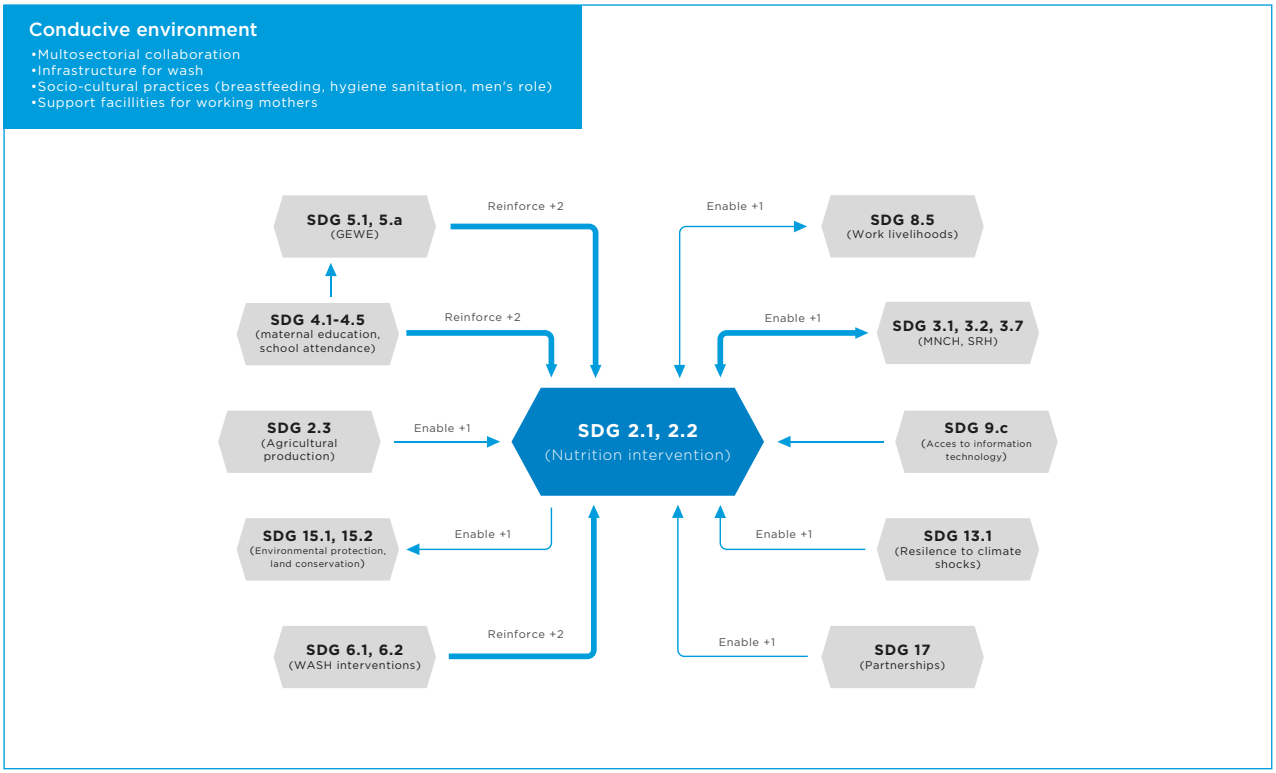

Figure 14. Nutrition-related interventions - 7 reports

Like SDG 3, availability of safe water and sanitation facilities (SDG 6) is indispensable in nutrition-related interventions, in both normal and humanitarian settings. For instance, provision of urgent WASH (water, sanitation and hygiene) to the vulnerable women and children among Syrian refugees in Jordan has contributed to UNICEF's support in the reduction of stunting (UNEG-09868). Similarly, UNICEF Cambodia has promoted hygiene behaviours and increased access to safe water, sanitation, and hygiene, using a community-led total sanitation approach (UNEG-06098). That has contributed to reduced stunting of children in Cambodia. Increased water assets (SDG 6) improved not only health (SDG 3) and nutrition (SDG 2, 3) outcomes, but also gender disparity in education (SDG 4). Therefore, SDG 4 is an important determinant in nutrition-related interventions. For instance, the school feeding

activity supported by the WFP in Somaliland and Putland has encouraged more children to come to schools and improved the quality of learning as children were nutritionally supported and thus more able to concentrate (UNEG-05283). However, school dropout was still observed in older year groups, as the project did not implement activities to deconstruct the socio-cultural norms and influences that encourage children to leave school.

Nevertheless, the project's livelihood activities (SDG 8.5) interlinks with SDG 2, 3, and 5. Furthermore, there are some interventions, focused on environmental protection, which has encouraged more communities to consider the importance of land conservation (SDG 15.1,15.2) (UNEG-05283). Similarly, in another WFP project in Ghana, good nutrition has incentivised children's school attendance and retention (SDG 4) while families received food rations (SDG 2) (UNEG-05284). Furthermore, in Haiti, UNICEF reported that maternal education (SDG 4) is inversely related to child stunting (SDG 2, 3) as 33.6% of children whose mothers had no education were stunted compared with 11.5% of children whose mothers received secondary educations (UNEG-06120).

In addition to SDG 3, 4, 5 and 6, interventions targeted to reduce nutritional problems help achieve other SDGs such as SDG 13, 8, and 1. The example can be seen in Ghana, where a WFP food-and cash-based support (SDG1,2) project has improved the community's livelihoods (SDG 8) (UNEG-05284) and resilience to climate shocks (13.1). The project's support of women's economic empowerment through asset creation had environmental benefits (15.1, 15.2) as it led to an increase in reforested areas and rehabilitated dams. This, in turn, enhanced community climate resilience (13.1).

Operational partnerships (SDG 17) are instrumental in nutrition-related interventions due to the multi-sectoral nature of nutrition, most notably through health, WASH, agriculture, education, social protection, and early child development to affect the underlying determinants of nutrition, including poverty and food insecurity. Therefore, WFP has implemented a food for description project in Swaziland in partnership with other UN agencies as part of the national HIV/AIDS response to strengthen HIV health sector capacity to deliver quality HIV treatment care and support services (UNEG-05967).

4.3 CONCLUSIONS FOR PHASE I

Overall, based on the evaluation reports and literature included in this review, it can be concluded that gender equality has strong linkages with health and wellbeing directly or indirectly through other SDGs under multisectoral, collaborative contexts. In other words, promoting gender equality is associated - not causally - with improvements in a variety of health, wellbeing, and other development outcomes. Included UN evaluation reports highlight that associations between gender equality and improvement in health and wellbeing and other SDG outcomes are cross-sectoral. In other words, these findings suggest that coordinated and integrated approaches in delivering development interventions will achieve meaningful development objectives. **Figure 15** illustrates this concept, spotlighting the value of gender mainstreaming in development interventions, thus simultaneously improving gender and development outcomes, including health.

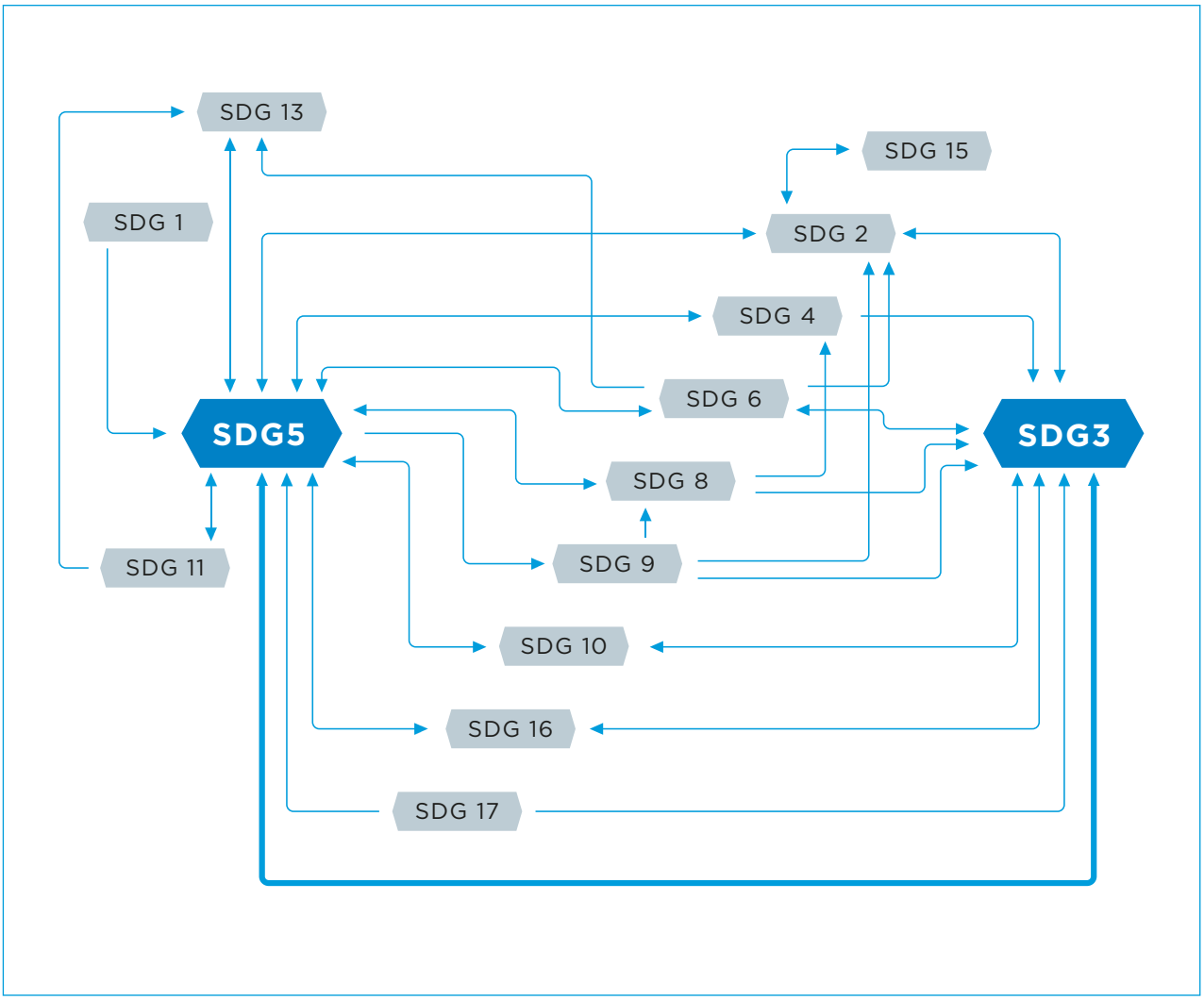

Figure 15. Summary map of SDGs interlinkages

Of 70 included evaluation reports, SDG 5 interacts with SDG 3 directly or indirectly through ten other SDGs: SDG 1, 2, 4, 6, 8, 9, 10, 13, 16, and 17. There is no report which describes interlinkages with SDG 7, SDG 12 and SDG 14 (Life Below Water), either with SDG 5 or SDG 3. Based on the findings from 81 included reports, key interactions between SDG 5 and SDG 3 and other SDGs can be described as follows (Figure 12):

Interlinkages between gender equality (SDG 5) and health and wellbeing for all (SDG 3) are strong and bi-directional (Arrow 1). Gender equality in health and wellbeing for women and girls along the life course is one of the most direct and strong ways to reduce inequalities in health and wellbeing and to achieve Goal 3. Almost all SDG 5 targets (5.1-6, 5a-c) interact directly with almost all SDG 3 targets (3.1-4, 3.7, 3.8, 3b-c). Progress on social justice goals for women and girls such as no hunger (Arrow 2), quality education (Arrow 3), and clean water and sanitation (Arrow 4) influence progress on SDG 3. An economic goal (SDG 8) is an important determinant to progress on health and wellbeing and directly associated with gender mainstreaming efforts (Arrow 5). Goals focus on infrastructures such as industry, innovation, and infrastructure (SDG 9) (Arrow 6), sustainable cities and communities (SDG 10) (Arrow 7), and strong institutions (SDG 16) (Arrow 8) are important enablers to achieve good health and wellbeing. The final goal on partnerships (SDG 17) supports the achievements to progress on gender equality and health and wellbeing (Arrow 9).

SDG 8, particularly SDG 8.3 (policies supporting decent job creations) and 8.5 (women's employment) reinforce the progress on education SDG 4 by reducing gender disparity in education and increased child education (SDG 4.1-5) (Arrow 10). Safe water, sanitation and hygiene facilities (SDG 6.1 ,6.2), and infrastructure and access to information technology (SDG 9.b, 9.c) are important determinants to tackle malnutrition (Arrow 11 and 12). Measures on women in industry (SDG 9.3, 9.a) creates job opportunities and employment for women (SDG 8.3, 8.5), resulting in direct economic impact (Arrow 13). Poverty reduction (SDG1), particularly in the form of transfer of cash in humanitarian settings, supports achieving sexual and reproductive health rights (SDG 5.2, 5.a, 5.1) (Arrow 14). Safe space or shelter, inclusive living (SDG 11) is an important determinant for women and girls' safety (SDG 5.1-5.6, 5a-c) (Arrow 15). Safe shelter (SDG 11.5) also reduces lives lost due to natural disasters (SDG 13.1,13.2) (Arrow 16). Regarding SDG 13 on climate action, although women are vulnerable to climate change effects, they act as key agents for change for migration and disaster risk reduction as well as adaptation strategies (SDG 13.1, 13.2) (Arrow 17). Access to clean water, sanitation, and hygiene facilities (SDG 6) is essential during and after natural disasters (SDG 13.1, 13.2) (Arrow 18). Environmental protection, land conservation, and restoration (SDG 15.1,15.2) are important in efforts to end hunger and malnutrition (SDG 2) (Arrow 19).

5 EMPIRICAL MODEL TO TEST SDG INTERLINKAGES

This study explores the impact of gender based violence on health and work of women, using secondary data analysis of a representative survey data in Jamaica (Jamaica Women's Health Survey, 2016). This data source is new, publicly available and relevant for the topic.

5.1 BACKGROUND

The Jamaica Women's Health Survey (2016) is the first report to provide a comprehensive examination of the nature and prevalence of violence against women and girls in Jamaica. The survey follows the WHO model[8] which is being adapted with each experience in the Caribbean with a view to establishing a Caribbean Community (CARICOM) Model on National Prevalence Surveys on Gender Based Violence. The WHO model is an internationally recognized methodology, with protocols for providing a comprehensive picture of the actual number of women who have experienced violence, the types of violence and the frequency of the violence. This survey examines abuse in multiple dimensions, both sexual and non-sexual, including economic coercion. The analysis can be replicated with data from other Caribbean countries as they become available.

The data covers several areas, enabling the identification and comparison of risk and protective factors for intimate partner violence (IPV), the coping strategies used by women experiencing IPV and the health consequences of IPV for women's health and work and their children's health and education attainment. This type of data measures SDG Targets 5.2 (eliminate all forms of violence against women and girls) and allow us to study the interlinkages with other SDGs such as SDG 3, SDG 8, SDG 11, and SDG 4.

Violence against women remains widespread in Jamaica, despite the country being classified in the high human development category based on the Human Development Index (HDI) from the United Nations Development Programme's (UNDP). In 2016, Jamaica has also performed well on the Gender Development Index (GDI), which sex disaggregates performance on the HDI by looking at gender inequalities in achievement in three basic dimensions of human development: health, education, and command over economic resources. Jamaica's 2016 HDI was 0.738 for males and was 0.719 for females. This suggests that the socioeconomic gap between women and men in Jamaica is small. However, Jamaica's Beijing+20 report notes that the high incidence of gender-based violence and violence against women remain major obstacles to the achievement of gender equality, women's empowerment, and national development (BGA, 2016).

[8] World Health Organization, Department of Reproductive Health and Research, London School of Hygiene and Tropical Medicine, South African Medical Research Council (2013). Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. https://www.who.int/publications/i/item/9789241564625

Research on the health consequences of intimate partner violence found that women who have suffered abuse were more likely to have a chronic medical condition and spend more time in bed than women who have never been abused (Ruiz-Perez, et al., 2007). In Australia, intimate partner violence has been ranked as a leading contributor to death, disability, and illness among women ages 18 to 44 years old (Vos et al., 2006).

5.2 RESULTS

5.2.1 Demographics

The survey included women between the ages of 15 and 64 from rural and urban communities in Jamaica, 54.9% were from urban areas and 45.1% from rural areas. The majority of respondents (66.6%) were between 25 and 54 years old. More than half was educated up to the secondary level (64.7%). In terms of employment, 56.8% were in wage employment or self-employment. Almost two-thirds (64.7%) were in a relationship with a male partner (Williams, 2018).

5.2.2 Prevalence of intimate partner violence

The questionnaire has two measures of prevalence of IPV: lifetime prevalence and current prevalence. Lifetime prevalence refers to the percentage of women who have experienced intimate partner violence at any time. Current prevalence refers to the percentage of women who have experienced intimate partner violence within the previous 12 months. Prevalence of different forms of violence and abuse includes physical, sexual, emotional, and economic abuse by their male partners (current or previous).

Lifetime prevalence of intimate physical and/or sexual violence was 27.8% of women in the sample. Prevalence of emotional violence is 28.8% and economic violence 8.5%. There was no significant difference across rural and urban areas or by relationship status. One in four women (25.2%) has experienced physical violence by a male partner, and 7.7% has been sexually abused by their male partner. Acts of violence included slapping, beating with fists, pushing, kicking, and attacking with a weapon (or threatening to do so). Severe acts of violence (such as hitting with fists or an object, kicking, dragging, choking, or burning) were experienced by 18.2% of respondents. Women who had entered into a live-in partner relationship at an early age (under 19 years) had a higher prevalence of lifetime intimate partner physical violence — 45.0% compared with 24.5% for those who had entered into such relationships at age 19 years and older. Women who had been pregnant were significantly more likely to experience physical abuse by their male partner (27.4%) than women who had never been pregnant (11.3%).

Although the prevalence of intimate partner physical violence was higher among women with lower levels of education than among those with higher levels, 19.3% of women with the highest levels of education had been victims of intimate partner physical violence at some point in their lives (levels of lifetime intimate partner physical violence were 32.8% for women with no/primary education; 24.5% for women with secondary education; and 26.5% for women with a vocational education). However, the higher the education level of women, the less likely they are to experience either moderate or severe intimate partner physical violence.

5.2.3 Impact of intimate partner violence

Impact on women's health

The data from the Jamaica Women's Health Survey shows that intimate partner violence has grave consequences for women's physiological and psychological health. Women who are abused have poorer general health and are more likely to suffer from depression and consider suicide than women who have never been abused. More than one in every three abused women (34.3%) suffer injuries as a result of physical and/or sexual partner violence. For nearly 1 in 5 women (18%), the injury was severe enough to require medical care. More than one third (35.5%) of women who have experienced violence report some or many problems with their overall health (vs 27.9% of women who have not experienced physical or sexual violence). The data shows that intimate partner violence has a clear relation to women's daily functioning; abused women were twice as likely to have problems with memory and concentration and carrying out their usual activities as women who were not abused.

Impact of IPV on work

One-fourth of the women (20%) reported that the violence they experienced left them unable to concentrate on their work, and 14.9% reported that their partners have disrupted their work. A few women said the violence left them unable to work as they needed sick leave and that it caused them to lose confidence in their own abilities.

Impact of IPV on children's education

Children of women who experience intimate partner violence are four times more likely to drop out of school at a young age or to repeat a grade and face all the risks associated with violence.

Interlinkages model

Model 1 (Figure 18) corroborates the impact of IPV on health (general and psychological) and on work for women. The values in the arrows are regression coefficients (that depend on the scale of the variable) and the stars flag significance. We have tried other models that include education and fear of crime but the associations were not significant.

Path model

In a path model, there is a distinction between exogenous and endogenous variables. 'Exogenous' variables correspond to the independent variables. In a path diagram, no other variables in the model are thought to influence an exogenous variable (no arrows point to these factors). In contrast, 'endogenous' variables are the 'dependent variables' which are predicted by other constructs in the model (Schumacker and Lomax, 2010).

In this model, we consider that IPV is a latent variable which means that it can manifest in different ways (economic, emotional, physical and sexual) and it was measured by different questions. IPV is related to General Health (GHealth), to psychological health (Psy health) and work impact. The endogenous variable in this mode is IPV and exogenous are all the other variables. Although we clarify that no causal statistical relationships were assumed, only associations, from a conceptual perspective we can assume a direction of the relationships. For example, poor health may be a consequence of IPV and not the opposite. However, the relationships can be spurious as explained by other variables not included in the model.

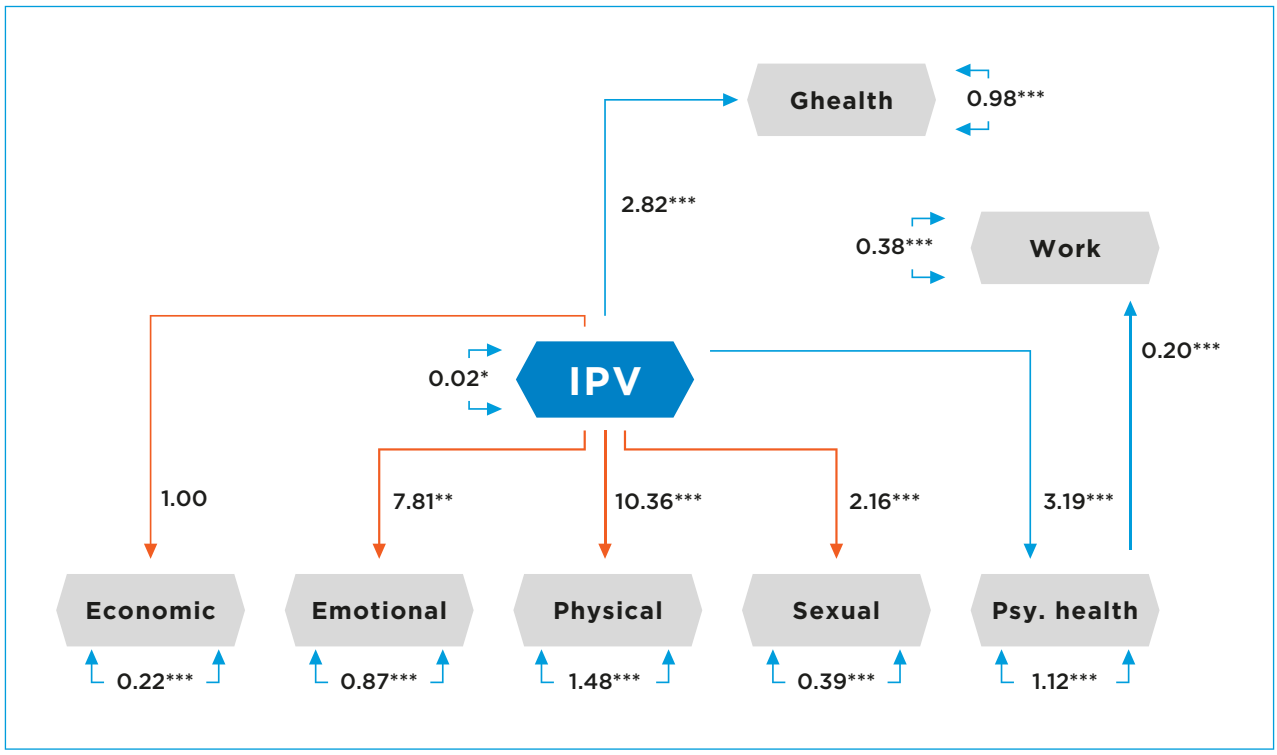

Figure 16. Structural equation model for the interlinkages between IPV measurement model, health, and work

5.3 RECOMMENDATIONS TO EXPAND THE ANALYSIS OF IPV WITH HOUSEHOLD SURVEY DATA

The results show that IPV is interlinked with several dimensions of health (physical and psychological) that in turn are associated with women's work. In future analyses, we recommend:

1. Exploring more complex models that involve mediation paths and providing fit indices to select the models with the best fit to the data.
2. Refining the Model (for example, selecting only women who are in employment).
3. Replicating this analysis with data for other national prevalence studies of IPV in the Caribbean region (Trinidad and Tobago, Guyana, Grenada, and Suriname).
4. In a multi-country analysis, considering contextual factors such as climate vulnerability and displacement (that puts women more at risk of IPV and sexual violence), crime rates, policy environment, and law enforcement.
5. Expanding this model to include other types of sexual violence and abuse such as workplace sexual harassment.

6 OVERALL RECOMMENDATIONS

These recommendations are geared towards future planning and evaluation efforts within the UN system and beyond to strengthen them as sources of information on SDG interlinkages.

These recommendations are considered particularly relevant for large joint evaluations and system-wide evaluations, such as those related to the Spotlight Initiative and United Nations Sustainable Development Cooperation Framework (UNSDCF) evaluations, which bring together a large number of agencies working on different SDGs to deliver joint results. Integration of these recommendations within evaluations would allow for further developing and testing the conceptual models in this report and would provide valuable information for ongoing SDG programming and future evaluation of the SDG framework.

RECOMMENDATION 1

Include relevant contextual information related to potential SDG interactions from planning documents in evaluation reports and integrate within overall analysis to identify factors that may facilitate or hinder the proposed intervention. Gender norms and inequalities are context-dependent. Our findings underscore that a particular intervention that promotes gender equality and health and wellbeing in one context may not work in other contexts. Recognising this context-specific nature development intervention, a realist evaluation framework was employed in this study to extract data from reports which met the inclusion criteria. Although this evaluation provided as much relevant background and contextual information as possible in describing our findings, this analysis was limited by the level of contextual information available in the evaluation reports. If future evaluations explicitly and uniformly provided more background and contextual information, they would enable secondary analysis that allows for better identification and learning about how SDG interlinkages might operate under specific contextual conditions.

RECOMMENDATION 2

Include SDG interlinkages and contextual information in theories of change. The evaluation reports state the specific programme objectives, sometimes without a theory of change. Where theories of change were included, contextual factors within which the theory is expected to operate and the relevant SDGs (with uni- or bi-directional associations) were missing. These contextual factors and relevant SDGs need to be included within the theory of change and its analysis to produce a conceptual model which illustrates the interlinkages

between gender equality and health and wellbeing and other SDGs. The causal loop diagrams of each intervention tend to describe how SDG 5 interacts with SDG 3 and other SDGs, and under what circumstances. Based on each causal loop diagram, some degree of associations with directions (uni- or bi-directional, depending on the pattern of interaction) were identified across different SDGs. In the absence of this information, it was challenging to interpret the findings in a meaningful way for our study.

RECOMMENDATION 3

Develop results frameworks that track negative interactions or unintended consequences of interventions on particular SDGs and analyze and look for this emergence when evaluating. The overall evidence supports gender integration in interventions to achieve not only gender equality but also health and well-being outcomes. Interestingly, we did not identify any negative interactions between gender and health and wellbeing and other SDGs. Although we intend to use the seven-point scale of Griggs et al., 2017, we were only able to make use of two points: enable +1 or reinforce +2. The scale has proven useful for our analysis and we recommend others to use it to interpret the strength of the associations. However, development of monitoring and evaluation (M&E) frameworks that allow for capturing negative interactions and the unintended consequences of interventions would allow for capturing negative interactions against the scale, which would support planning to mitigate their effects and improve overall progress.

RECOMMENDATION 4

Innovate with systems thinking evaluation methods that allow evaluation of SDG indicators as a system of interlinked goals with feedback and interactions that apply to particular contexts. A general gap in the reports is the description of why interventions work in which context and why. As all evaluation reports included in this studyare time-bound dependent on their funding cycles, it is not always possible to get to the intended objectives. Based on the findings, there is a need to identify and select evaluation methods that support identifying how SDG 5 interacts with SDG 3 and other SDGs, and in what contexts, using qualitative or quantitative analysis, for example on conceptual models, systems thinking analysis, and structural equation models.

RECOMMENDATION 5

Leverage the opportunity of the UNSDCF evaluations to implement Recommendations 1 – 4 above to deepen the understanding of SDG interlinkages within a specific country context. The United Nations Sustainable Development Cooperation Framework (UNSDCF) evaluations provide the opportunity for building Theories of Change across SDGs and evaluating interactions across SDGs within a single country context, providing an opportunity to develop robust and meaningful country-specific models that enable better understanding of how and why SDGs interact, and the intervention sets that together can enable stronger progress across the framework.

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8 ANNEXES

ANNEX A: METHOD FOR THE EMPIRICAL MODEL FOR GENDER-BASED VIOLENCE

Definitions and objectives of the Jamaica Women's Health Survey

The United Nations defines violence against women (VAW) as 'any act of VAW that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life[9]'. Violence against women is often used synonymously with the terms gender-based violence or intimate partner violence. The international community recognizes violence against women as a fundamental violation of human rights that affects women of all ages, socioeconomic strata and educational backgrounds.
VAW encompasses many forms of violence, including violence by an intimate partner such as sexual assault, and other forms of violence perpetrated by someone other than a partner. It also includes female genital mutilation, honour killings and the trafficking of women (WHO, 2021). This study focuses on intimate partner violence that encompasses physical, economic, emotional and sexual violence in Jamaica.

This study is based on secondary data analysis of the Jamaica Women's Health Survey (2016)[10] was conducted by the Statistical Institute of Jamaica, with technical and financial support from the UN Women MultiCountry Office – the Caribbean and the Inter-American Development Bank. The survey is the pilot for the first nationally-led Prevalence Study on gender-based violence in the Caribbean Community. The objectives of the survey were to (Williams, 2018):

- Obtain reliable estimates of the prevalence of intimate partner and non-partner violence against women
- Determine associations between intimate partner violence against women and a range of health and other outcomes
- Identify factors that may either protect or put women at risk of intimate partner violence
- Document how women cope with intimate partner violence, including the strategies and services used
- Gain an understanding of how social contexts and cultural norms drive intimate partner violence and other types of violence against women; and
- Make the data available for formulating policies, legislation and programmes to intervene in and to eradicate violence against women.

[9] Declaration on the Elimination of Violence against Women, Available at http://www.un.org/documents/ga/res/48/a48r104.htm

[10] https://publications.iadb.org/en/womens-health-survey-2016-jamaica-final-report

2 Sampling strategy of the survey

The sample design of the Jamaica Women's Health Survey (2016) is a multi-stage stratified probability sampling. Prior to selection, the sampling frame was stratified into urban and rural areas across the 14 parishes of Jamaica. During the first stage of sampling, a proportionate number of primary sampling units (enumeration districts) were selected from each strata with probability proportional to the size of the population (based on the 2011 Population and Housing Census). Primary sampling units are defined as an independent geographic area containing relatively homogeneous dwelling units. On average, in urban areas, each primary sampling unit contains 150 dwellings; in rural areas, primary sampling units have an average of 100 dwellings (Williams, 2018).

The second stage of sampling was the selection of dwelling units from each of the primary sampling units selected in the first stage. A total of 15 dwellings per primary sampling unit were systematically selected, with a random start. Where dwellings contained multiple households, the household occupying the larger share of the dwelling was interviewed.

The third stage of sampling was the selection of the target population to be interviewed. At this stage, one eligible woman was selected from among eligible female household members. The selection of women to be interviewed within each household was done randomly through the Kish Selection Grid.
A total of 2,145 households were selected in the sample. Of the households that were contacted, 1,185 had eligible women, 1,067 of whom completed questionnaires. From the 578 households that were not contacted, a total of 437 households were estimated to have eligible women, based on the same proportion of the contacted households with eligible women. This brings the eligible total to 1,622. The household response rate is 85.5% and the individual response rate of 65.9% (Williams, 2018).

3 Mode of data collection

Guided by the WHO methodology, the survey used only female interviewers and supervisors for the fieldwork. A total of 57 women, selected from among all of the parishes, were trained as field workers for the survey. The women were recruited via a combination of newspaper advertisements and referrals. In considering applicants for the interviewing position, the applicants' basic skills and personality traits were assessed.

The training took place over a period of three weeks. It was conducted by researchers from the Global Women's Institute, George Washington University in the US, with assistance from the Statistical Institute of Jamaica and the UN Women Project Coordinator. The mode of data collection for the survey was Computer Assisted Personal Interview with the use of tablet computers; two days were devoted to the training on the use of the tablets.

In keeping with ethical standards, interviewers were trained in the application of and adherence to strict ethical standards during data collection. These standards ensured that respondents were treated with respect, assured of confidentiality and safety, empowered to refuse to participate or to complete the survey and provided with information on available services for women who have experienced violence in the event of need.

4 Indicators

The Jamaica Women's Health Survey (2016) collected indicators of risk factors and impact associated with violence against women and girls, such as on women's physical and mental health and various coping strategies that women have employed in response to abuse. The dataset also allows analysing women's attitudes towards gender roles and a general profile of the perpetrators of abuse, but that analysis was not considered in this study.

The indicators used in this study are listed below (Table 5).

Table 5. Variables from the Jamaica Women's Health Survey (2018) used in this study

Sociodemographics	Intimate partner violence (SDG 5.2)	Impact on women's health (SDG 3)	Impact on women's work (SDG 6)	Impact on children's education (SDG 4)
•Total number of people in the household •Gender •Age •Education •Occupation status •Source of income •Relationship status	•Controlling behaviour •Economic abuse •Financial abuse •Emotional abuse •Physical violence •Sexual violence	•General Health •Problems with usual activities •Problems with pain •Problems with memory or concentration •Psychological health •Severity health scale •Injuries from violence and frequency of injuries •Frequency of injuries •Perception of impact on physical or mental health	•Work impact	•Children failed one year at school •Children dropped out from school

5. Measurement model for psychological health

In this study, we propose analysing the interlinkages between IPV, health, work and education. The original study of the Jamaica Health Survey (Williams, 2018), used bivariate techniques to study associations between variables related to these topics, as reported in the previous section.

However, the impact of IPV involves several domains that can also be connected to one another. For example, IPV affects the capacity of women to work because it impacts their memory and concentration, and it may lead to self-devaluation and in some cases depression. To analyse the interlinkages between these variables, we employ a technique called structural equation modeling (SEM) (Schumacker and Lomax, 2010). Although the method is also referred to as 'causal modeling,' the term 'causal' (or even 'affects' or 'impacts') should be used with caution as the survey design does not allow to infer causality. The correct way to interpret it is to conclude, 'X helps predict Y' (Laccubucci, 2009).

SEM models consist of a measurement model, which relates the variables to the constructs, and a structural path model, which relates to the linkages between constructs. The analysis was done in R Studio, version 1.4.

Measurement model

In this step, we create a variable for psychological health that is derived from a set of items in a scale, using a technique called confirmatory factor analysis (CFA) (Kline, 1994). The objective is to use only one variable in the SEM analysis rather than 17 variables that all measure psychological health. Figure 17 illustrates the CFA measurement model for these data and the respective loadings that measure the association between the items and the constructs (vary between 0 and 1 - the closest to 1, the highest the association). The CFA model allows for inferential testing of two sorts: first, the significance of each of the factor loadings, and second, the overall fit of the model (Schumacker and Lomax, 2010).

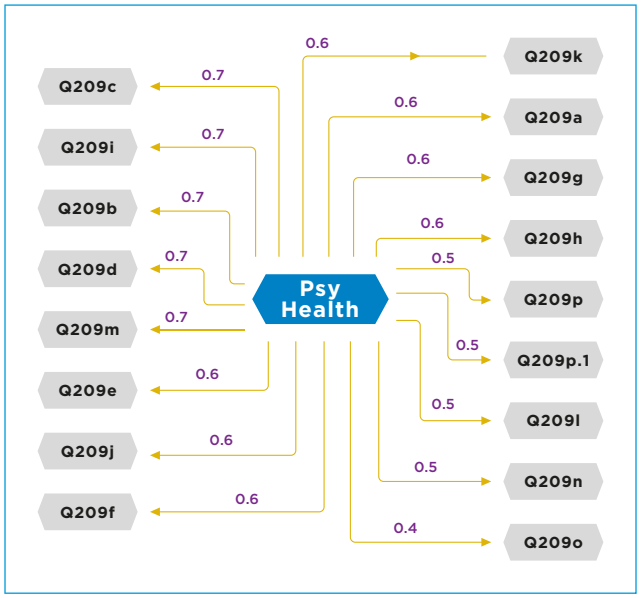

Figure 17. Factor analysis of psychological well-being scale

ANNEX B: IDENTIFICATION OF RELEVANT PEER-REVIEW LITERATURE

To complement the analysis of the evaluation reports, we undertook a systematic literature review of academic literature in three databases: PubMed, ScienceDirect, and Scopus (**Table 6**).

The search expression included words related to sustainable development, SDG 3, SDG 5 and interlinkages (Table 5). The words could appear in the title and/or text of articles published on or after 2014 in any language. The search expression is below:

(sustainable AND development) AND (healthy lives OR well-being OR SDG 3) AND (gender equality OR gender equity OR SDG) AND (Interrelationship OR Interconnection OR Interdependence OR Interdependencies OR Interlinkages)

Table 6. Number of peer-review articles retrieved in each one of the articles database (total=328)

Database	SDGs	SDG 3+SDG 5	Interlinkages	Date range	Full search
PubMed	Text	Text	-	2014-2020	116
ScienceDirect	Text	Title and Abstract	Text	2014-2020	118
Scopus	Text	Title and Abstract	Text	2014-2020	94

The screening of articles was done by three independent researchers and research interns based at UNU IIGH using the software Covidence. The conflicts were resolved by a fourth researcher. The articles were screened based on the inclusion and exclusion criteria in titles and abstracts in the first step, and in full-text in the second step.

Table 7. Inclusion and exclusion criteria of articles retrieved through the articles database

Inclusion criteria	Exclusion criteria
Articles alluding to the link between SDG 3 and SDG 5 Articles that show an influence on other gender-relevant goals that can include: Quality Education (SDG 4), Clean Water and Sanitation (SDG 6), Decent work and economic growth (SDG 8), Sustainable Cities and Communities (SDG 11), Climate Action (SDG 13), and Peace, Justice, and Strong Institutions (SDG 16). Reports describing processes, context or systems to explain SDG interlinkages. Timeframe: Published on or after 2014. Article Type: Primary, empirical studies of any design, including reviews and programme reports. Language: Any.	Articles not alluding to the link between SDG 3 and SDG 5 Articles that do not describe processes, OR context, OR systems to explain SDG interlinkages. Published before 2014 Commentaries or Abstracts

From 328 articles retrieved from the three databases, we selected 172 non-duplicates that met the inclusion criteria (Figure 18).

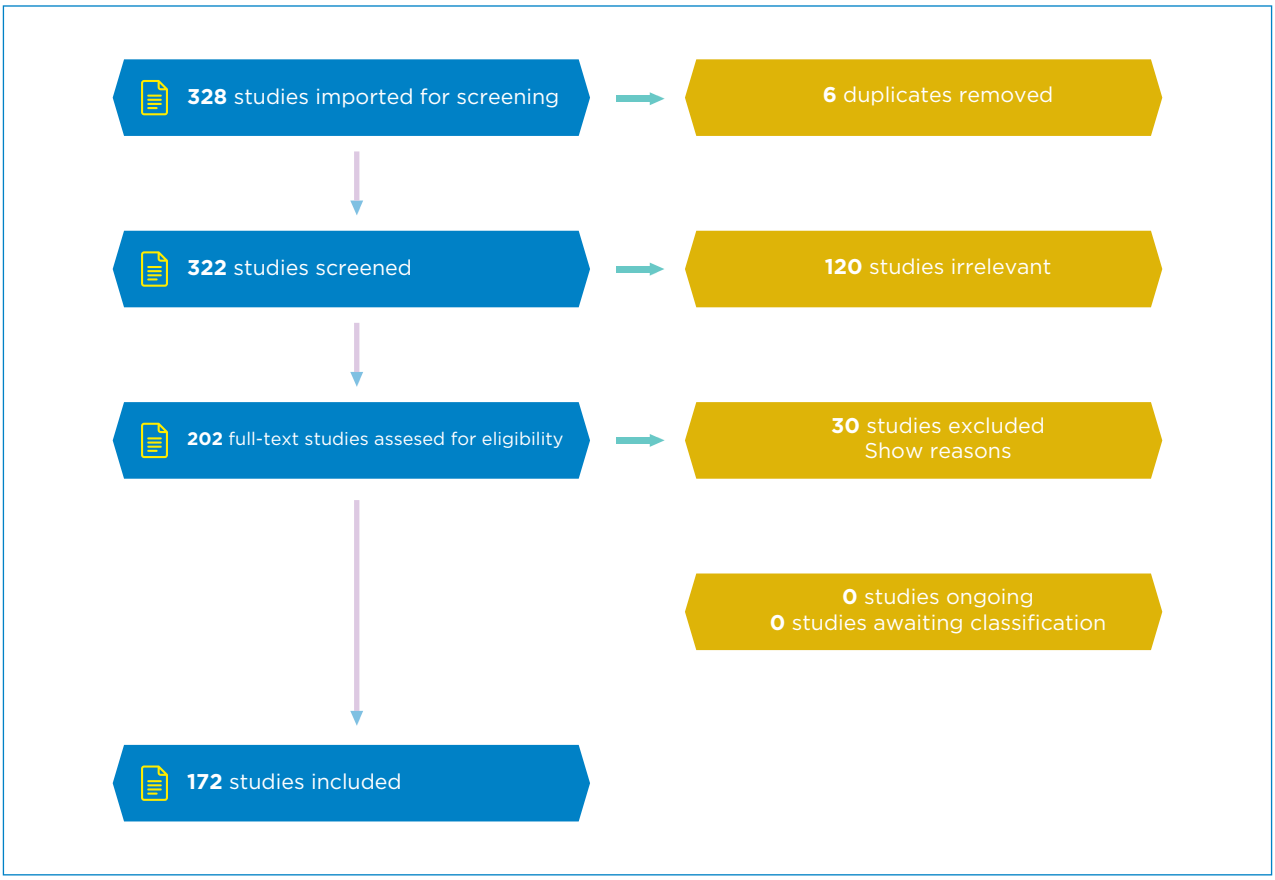

Figure 18. Prisma diagram for the systematic literature review of the peer-reviewed literature

ANNEX C: REPORTS ANALYSED

Details of the reports analysed in the conceptual models (total = 70)

Agency	Author, year	Country	Title of report	Conceptual model
ILO	International Labour Office, Evaluation Office 2015	Albania, Bosnia and Herzegovina, former Yugoslav Republic of Macedonia, Montenegro, Serbia.	Independent evaluation of the ILO's Decent WorkCountry Programme Strategies and Actions in the Western Balkans 2012–2015	Gender responsive planning
ILO	ILO, 2018	Lebanon and Jordan	ILO'sProgramme of Work in Lebanon and Jordan in Terms of Decent Work and the Response to the Syrian Refugee Crisis 2014-2018	Gender responsive planning
ILO	ILO, Evaluation Office – Geneva: ILO, 2019	Lesotho, Madagascar, South Africa and the United Republic of Tanzania	ILO's Programme of Work in Four Selected Member Countries of the Southern African Development Community (SADC) (Lesotho, Madagascar, South Africa and the United Republic of Tanzania), 2014-2018	Gender responsive planning
		Ukraine, Moldova, Georgia and Belarus	Regional Programme Against Human Trafficking (Ukraine, Moldova, Georgia, Belarus) Phase II Mid Term Evaluation	Gender responsive planning
IOM	Office of the Inspector General, 2017		Midterm Evaluation of IOM Gender Equality Policy 2015-2019	Gender responsive planning
IOM	Dufvenmark, 2015	Nepal	Technical Assistance to the Ministry of Peace and Reconstruction to ensure Effective access of Conflict Affected Persons to Victims Assistance Processes in Nepal	Gender responsive planning
IOM	Patricia Goldschmid, 2020	Panama, Costa Rica, Nicaragua, Honduras, Guatemala, El Salvador, Mexico	Ex-post Evaluation: Development and Implementation of aCentral American Joint Initiative on The Health of Migrants	Gender responsive planning

Agency	Author, year	Country	Title of report	Conceptual model
		Panama, Costa Rica, Nicaragua, Honduras, Guatemala, El Salvador, Mexico	Implementation of aCentral American Joint Initiative on The Health of Migrants	
IOM	Bugnion de Moreta, 2019	Azerbaijan	Final External Evaluation of the "Enhancing Cooperation Measures to effectively Combat Trafficking in Persons through Capacity Building and Technical Assistance in Azerbaijan phase VI (ECMCT)"	Gender based violence
IOM	Tango Consult, 2017	South Sudan	Evaluation of International Organization for Migration (IOM) South Sudan Health and WASH Response: 2014 – 2016	Health & wellbeing
OCHA	The Konterra Group, 2019	South Sudan	OCHA Evaluation of Country-Based Pooled Funds	Health & wellbeing
UNDAF	UNDAF, 2015	Malawi	United Nations Development Assistance Framework (UNDAF) for Malawi 2012-2016 - Evaluation Report	Gender responsive planning
UNDAF	Primson Management Services, 2017	Liberia	Liberia UNDAF 2013-2017 Evaluation Report	Health & wellbeing
WFP	Poulsen et al., 2015	Somalia	Mid-term evaluation report of the WFP 'Protracted Relief and Recovery Operation (PRRO) Strengthening Food and Nutrition Security and Enhancing Resilience'. June 2012 –December 2015	Nutrition
WFP	Gardner, Pasquet & Casely-Hayford, 2015	Ghana	Mid-term evaluation report of the WFP Country Programme Ghana (2012-2016).	Nutrition
UNICEF	Unicef, 2015	Namibia	Namibia Football Association's Galz and GoalsSports for Development Programme–Impact Evaluation Report	Health & wellbeing

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WFP	WFP, 2016	Swaziland	Food by PrescriptionStandard Project Report 2016	Nutrition
UNICEF	Unicef, 2016	South Sudan	Multi-Country Real Time Evaluation of UNICEF Gender-Based Violence in Emergencies Programmes: South Sudan Country Report	Gender based violence
UNICEF	Unicef, 2017	Cambodia	Reducing Stunting in Children Under Five Years of Age: A Comprehensive Evaluation of UNICEF's Strategies and Programme Performance – Cambodia Country Case Study	Nutrition
UNICEF	UNICEF, 2017	Haiti	Reducing Stunting in Children Under Five Years of Age: A Comprehensive Evaluation of UNICEF's Strategies and Programme Performance – Haiti Country Case Study	Nutrition
UNICEF	Sayara Research, 2018	Lebanon	Evaluation of Immunisation Programme (EPI) in Lebanon (2013-2017)-Final Report	Health & wellbeing
UNICEF	Unicef, 2018	Eswatini	Impact Evaluation of the Teen Club Program for Adolescents living with HIV in Eswatini	Health & wellbeing
UNICEF	International Solutions Group, 2019	Jordan	Evaluation of UNICEF's response to the Water, Sanitation and Hygiene Needs in Jordan as a result of the Syrian refugee crisis (July 2012 to July 2017)	Nutrition
UNESCO	UNESCO Internal Oversight Service (IOS), 2019	UNESCO (Non-country Specific)	Evaluation of UNESCO's work in information and communication technologies (ICT) in education	Gender responsive planning
UNFPA	UNFPA, 2016	India	Country programme evaluation India Eight Programme Cycle (2013-17) Evaluation Report	Gender responsive planning
UNFPA	UNFPA, 2018	The Philippines	Evaluation of the UNFPA 7th Country	SRHR

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			Evaluation of the UNFPA 7th Country Programme of assistance to the Philippines	
UNODC	Ojha & Dorji, 2019	Bhutan	Enhance Government and Civil Society Responses to Counter Trafficking in Persons in Bhutan - FInal independent project evaluation	Gender responsive planning
UNRWA	UNRWA, 2018	Gaza Strip	Decentralized Evaluation of UNRWA Gender Initiative (2014-2017)	Gender based violence
UNRWA	UNRWA, 2019	Jordan	Evaluation of UNRWA Child and Family Protection Services	Gender responsive planning
UN WOMEN	Gocha Sirbiladze, 2014	Georgia	Mid-Term Review of the UN Women's Project Women for Equality, Peace and Development (WEPD) II	Gender responsive planning
UN WOMEN	UN Women, 2014	South Pacific countries	Formative evaluation of the Pacific Regional Ending Violence against Women (EVAW) Facility Fund	Gender based violence
UN WOMEN	UN Women, UNFPA, 2014	Ethiopia	Ending Violence Against Women 2010-2013 Ethiopia-End of Programme Evaluation (Volume I)	Gender based violence
UN WOMEN	UN Women, 2015	Sierra Leone	The Sierra Leone National Action Plan (SILNAP) Implementation of United Nations Security Council Resolutions 1325 (2000) & 1820 (2008)	Gender based violence
UN WOMEN	Milind Bokil, 2015	India	Final Evaluation of UN Women MCO's Work on Expanding the Scope of Gender Responsive Budgeting (GRB) in India (2012-2014)	Gender responsive planning, Gender based violence
UN WOMEN	Nepal Institute for Development Studies (NIDS), 2015	Nepal	Final Evaluation Report of Gender Responsive Recovery for Sustainable Peace (GRRSP) Project in Kavre, Ramechhap and Sindhuli Districts (October 2012 – March 2015)	Gender responsive planning

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UN WOMEN	Indevelop AB (Sweden), 2015	Georgia	Evaluation of the UN Joint Porgramme to enhance gender equality in Georgia - Final Report	Gender based violence
UN WOMEN	Barnes, 2015	Kazakhstan, Tajikistan and Uzbekistan	Multi-Country Portfolio Evaluation of Kazakhstan Multi-Country Office for Central Asia- Strategic Note 2014 –2015	Gender based violence
UN WOMEN	Indevelop AB, 2015	Georgia		Gender based violence, SRHR
UN WOMEN	Gocha Sirbiladze, 2014	Georgia	Mid-Term Review of the UN Women's Project Women for Equality, Peace and Development (WEPD) II	Gender responsive planning
UN WOMEN	Abdelgawad, 2016	Jordan	UN Women Project on Social Cohesion, Service Delivery and Gender Equality - Final Evaluation	Gender responsive planning
UN WOMEN	Center of Gender & Policy Studies, 2016	Pakistan	UN Women Pakistan - Women Leadership and Social Reconstruction Project (July 2014 –June 2016) - End Term Evaluation - Final Report	Gender responsive planning
UN WOMEN	Ojha, Balestrini and Gautam, 2016	Nepal	Final Evaluation of the Project “Strengthening Implementation of the Women, Peace and Security Agenda in Nepal (SIWPSAN)”.	Gender responsive planning
UN WOMEN	Nielsen Bangladesh, 2015	Bangladesh	Final Evaluation - Reducing vulnerability of women affected by climate change through livelihood options.	Gender responsive planning
UN WOMEN	Ernst and Young, India, 2016	Indonesia, Lao People’s Democratic Republic (PDR), Timor-Leste, and Vietnam	Endline Evaluation Report Leveraging Technical Tools, Evidence and Community Engagement to Advance the Implementation of Laws and Provision of Services to Women Experiencing Violence in South-East Asia	Gender based violence
UN WOMEN	Haarr, 2016	14 countries, including: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu	Mid-Term Evaluation of the Pacific Regional Ending Violence Against Women (EVAW) Facility Fund - Final Report	Gender based violence

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UN WOMEN	Kumar-Range, Tadele & Tassew, 2016	Ethiopia	UN WOMEN Ethiopia Country Office - Country Portfolio Evaluation Report	Gender responsive planning
UN WOMEN	UN Women, 2016	Ethiopia	Joint Programme on Gender Equality and Women's Empowerment in Ethiopia	Gender based violence
UN WOMEN	SeConS - Development Initiative Group, 2015	Republic of Serbia	Evaluation of the National Action Plan for the Implementation of the National Strategy for Improving the Position of Women and Promoting Gender Equality in the Republic of Serbia –Final Report	Gender responsive planning
UN WOMEN	Developmen t Solutions, 2016	Zimbabwe	Mid Term Evaluation of the Joint Programme on Prevention of Gender Based Violence (JPGBV) Against Young Women and Adolescent Girls	Gender based violence
UN WOMEN	UN Women, n.d.	Tanzania	Country Portfolio Evaluation - Final Report - Tanzania - Strategic Note 2014-2016	Gender responsive planning
UN WOMEN	Stephen Chipika, 2016	South Sudan	UN Women South Sudan Country Office - Mid-term Programme Evaluation	Gender responsive planning
UN WOMEN	RAD Consult Ltd., 2016	Rwanda	Report on the Final Evaluation of the Project for ther National Scale-up of the Isange One Stop Centre Model in Rwanda.	Gender based violence
UN WOMEN	Husain and Yang, 2017	China	Final Evaluation of the 2nd Phase EVAW Programme: Promote Efforts for National Legislation on Domestic Violence and Upscale the Multi-sector Model in China	Gender based violence
UN WOMEN	Arab & Atta, 2017	Afghanistan	Evaluation of UN WOMEN Afghanistan's Portfolio on Ending Violence against women (2014-2016).	Gender based violence

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UN WOMEN	Asfour & Plowright, 2017	Jordan	Final Evaluation of UN Women's Project "Rural Women's Food Security in Jordan" - Final Report	Gender responsive planning
UN WOMEN	UN Women, 2014-16	Sudan	Country Portfolio Evaluation (CPE)	Gender responsive planning
UN WOMEN	Amer, 2017	Egypt	Securing rights and improving livelihoods of women (SRILW) programme - Final MTE report	SRHR
UN WOMEN	UN Women, 2018	South Sudan	UN Women Country Portfolio Evaluation Final Evaluation Report: volume 1 - South Sudan Strategic Note 2014 –2018	Gender responsive planning
UN WOMEN	Feedback Marketing Consultants, 2018	Egypt	Evaluation of the Securing Rights and Improving Livelihoods of Women (SRILW) Action - Final Evaluation Report.	Gender based violence, Gender responsive planning
UN WOMEN	Khan, 2019	The Caribbean: Antigua, Grenada, Dominica	Evaluation of UN Women MCO Caribbean's Social Mobilization Programme to end Gender-Based Violence in the Caribbean	Gender based violence
UN WOMEN	UN Women, 2019	Malawi	Women's empowerment programme - mid-term evaluation report.	Gender based violence, Gender responsive planning
UN WOMEN	Marrar, 2019	Lebanon, Morocco and Palestine	Community Based Solutions and National Level Grants for Promoting Gender Equality and Engaging Men and Boys.	Gender responsive planning
UN WOMEN	Forcier Consulting, 2019	Jordan	Evaluation of the National Strategy for Women and Situational Analysis of Women's Rights and Gender Equality in Jordan.	Gender responsive planning
UN WOMEN	Independent Evaluation Service, UN Women, 2019	Global	Corporate thematic evaluation of UN women's contribution to governance and national planning	Gender responsive planning

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UN WOMEN	Zivetz and Mestvirishvili, 2019	Georgia	Unite to Fight Violence against Women - Final Evaluation report	Gender based violence
UN WOMEN	Universalia Management Group, 2014	Cambodia, Jamaica, Kenya, Papua New Guinea and Rwanda	End of Programme Evaluation of EC-UN Women programme Supporting Gender Equality in the Context of HIV/AIDS	Gender responsive planning
WHO	ACT-for-Performance BV, 2015	Senegal, Uganda and Zimbabwe	Evaluation of DFATD-funded Project Accelerating Nutrition Improvements in Sub-Saharan Africa.	Nutrition
WHO	APOC, WHO, 2015	Angola, Burundi, Cameroon, CAR, Chad Congo, DRC, Equatorial Guinea, Ethiopia, Gabon, Liberia, Malawi, Nigeria, South Sudan, Sudan, Tanzania and Uganda	The WHO African Programme for Onchocerciasis ControlFinal - Evaluation Report.	Health & wellbeing
WHO	WHO, 2016	Bangladesh, Indonesia, Myanmar, Nepal and Sri Lanka	Evaluation of WHO's Contribution to Maternal Health in the South-East Asia Region.	Health & wellbeing
UNFPA	UNFPA, 2017	Myanmar	UNFPACountry Programme Evaluation: Myanmar	SRHR
UNFPA	UNFPA, 2019	Bangladesh	Evaluation of the UNFPA 9TH country programme of assistance to the Government of Bangladesh	Gender based violence
ILO	ILO, 2017	Cambodia, Laos, Thailand, Vietnam	Independent evaluation of the ILO's Decent Work Country Programme strategies and actions in the Mekong subregion 2012–2017	Gender responsive planning