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# **United Nations' Sustainable Development Goals and the Most Important Utilitarian Values. Social Security Approach**

**Abstract:** 2030 Agenda constitutes a comprehensive framework for sustainable development. Nevertheless, not all sustainable development goals properly match the most important utilitarian values (human life and health). It is especially noticeable in terms of disasters and crises, which commonly determine social security. The research objective is to indicate the placement of the values in the particular goals. The systematic literature review indicates 47 information sources. That enables an in-depth analysis of the goals and social security specification elements, highlighting the direct or indirect character of relevant relations. The gaps can be identified considering the social character of the goals, characteristic hazards, danger to human life, and health and urgency of the response. In most cases, the relations between the goals and the values are indirect. They can be improved with a potentially positive influence on sustainable development in all circumstances (including the most dangerous ones). The goals specification states many references for the improvement in a synergistic way respecting the most important utilitarian values, especially in zero hunger, good health and well-being, sustainable cities and communities, climate action, partnership for the goals.

**Keywords:** *sustainability, sustainable development goal, SDGs, security, social security*

## 1. Introduction

Sustainability is connected with many security-related issues. Swensson and Tartanac (2020) highlight its usefulness in food security studies when implemented into public food procurement, diets, and food system challenges. It can influence food security via the relevant certification process (Schleifer & Sun, 2020). Because of the long-term specification, it is said to be a trusted operational direction for energy security, serving complex catalogs of indicators (Richards & Zaili, 2020). Similarly to emergency management (Nuta & Ciortan, 2015), when sustainable rescue ability can support logistics in cascading effect conditions and network infrastructure connections (Zhang et al., 2019), sustainable emergency planning can be ascribed to civil planning in modern due to multiple disasters (e.g., earthquakes) (Bernardini et al., 2020). Disasters can be used as sustainability opportunities in, at least, recovery processes in housing, worshipping, eating, being mobile, working, educating, recreating, caring, engaging, and communicating (Brundiars, 2018). Sustainable development generates new kinds of threats, and cyberspace is an extremely important source of them (Stergiou et al., 2018; Mohandes et al., 2018). Nevertheless, cybersecurity can be built sustainably and supported by sustainable ideas (Celdran et al., 2018).

The conceptual connection between sustainability and security can be presented more comprehensively. Roostaie et al. (2019) highlight a close relation between sustainability and resilience and use these concepts to find novel resilience indicators and frameworks. Fennelly & Perry (2020) show that the cultural layer of security may be created using sustainability patterns and manners. Knowledge integration and multi-actor governance can be understood as two risk management directions in the context of governance for sustainability (Shiroyama et al., 2012; Siemiątkowski et al., 2020), and systemic approach, so much characteristic for security studies, is implemented to sustainability research in case of natural disasters (Shahbazbegian & Bagheri, 2010).

Different approaches for sustainability caused a necessity to elaborate the comprehensive one, linking all most important issues of sustainability and sustainable development, however, not only in the security context. United Nations (UN) has responded to the need, and the 2030 Agenda for Sustainable Development (2030 Agenda) was agreed in 2015. The Agenda marks 17 Sustainable Development Goals (SDGs) (Report, 2016).

Many scientists have been carrying out their research on SDGs implementation since 2015. In general, the research work can be divided into three groups of output. The first group concerns studies for particular SDGs (or relevant targets) application (Mulligan et al., 2020; Witt et al., 2020). The second one comprises SDGs-related case studies for different countries, paying special attention to the developing ones (Horn & Grugel, 2018; Kumi et al., 2020). The third group collects works dedicated to multiple sustainability contexts (for example, urban targets (Rozhenkova et al., 2019), SDGs prioritizing (Allen et al., 2019), indicators (Barbier & Burgess, 2019), humanitarian aid (Mary & Mishra, 2020) and interconnection between the goals (Swain & Ranganathan, 2021)).

All the works imply different social values to be commonly protected in the light of the 2030 Agenda (Massenberg, 2019; Odii et al., 2020) and correspond to, more or less directly, security issues. As far as the values are concerned, it is hard to prioritize them because the agenda reflects a holistic view of world development. Theoretically (from the agenda point of view), all of them are equally important. Practically, natural hazards and man-made events prove that human life and health (as well as property and environment but only in terms of human basic existence needs) should be marked with the highest priority of importance. In conditions of direct danger to human life, the social character of the negatively perceived events, their urgency, and characteristic circumstances (hazards), these values are generally above the others, even in a sustainability context (Busby et al., 2018; Gromek & Sobolewski, 2020). They are the most important utilitarian ones, but SDGs seem to ignore this argument, even with many security-related connections to sustainability. It is a serious gap because sustainable development should respect that some values are more important than others (sustainable does not mean equable).

The most important utilitarian values commonly state a core element of social security (Rhinard, 2007). According to The Copenhagen School of Security Studies, it can be defined as “the ability of a society to persist in its essential character under changing conditions and possible or actual threats. More specifically, the concept is about the sustainability, within acceptable conditions for evolution, of traditional patterns of language, culture, association, and religious and national identity and custom” (Wæver & Buzan, 1993; Hoyland, 2018). Wolanin (2017) relates it with natural disasters and man-made events, which force multiple agencies and services to enhance effective response to hazards, civil protection, critical infrastructure protection, and manage relevant operations. Social security is strongly related to risk (understood as safety and security measures). And the wide agencies involvement is characteristic also for sustainability development (Manby, 2021).

Respecting the most spectacular hazards associated with disasters and a direct connection with sustainability justify a reason why social security can be cognitively used to investigate the placement of human life and health in the 2030 Agenda. Therefore, the objective of this study is to indicate the placement by analysis of particular SDGs in the context of social security. Thereby, we would like to collect information that will allow us to face the identified gap – an indirect reference of SDGs to the values that are undoubtedly the most important in all circumstances and conditions, for mostly all social groups and societies nowadays and in the future.

## **2. Materials and Methods**

A systematic literature review indicated direct and indirect connections of social security characteristic issues with particular SDGs. We used the Web of Science® (WoS®) Core Collection database and a topic titled: “sustainable development goals and social security” to directly connect the two issues. Such a proceeding allowed us to consider all titles, abstracts,

author keywords, and Keywords Plus from the database. No time limitations were placed (all years). We identified 47 literature positions as a solid framework for relations' identification. To achieve such a goal, it was necessary to focus only on SDGs and social security as wholes, disregarding fragmentary concepts, premises, and indicators that do not allow to visualize an entire picture of the research object.

In-depth analysis of the papers was directed into four crucial social security specification elements: social character, characteristic hazards, danger to human life and health, as well as the urgency of the response (Bodaghi et al., 2020; Gromek, 2020). The presence or absence of relations between the elements and SDGs in the literature highlighted areas to make additional theoretical and practical activities to improve mutual correspondence and strengthen a position of social security in sustainable development. Detailed results of the systematic literature review are presented in Appendix 1.

### 3. Results

#### 3.1. Social Character in SDGs

The social character was the most often mentioned element in the analyzed papers. Table 1 presents particular aspects of the character which can be identified based on the paper's content. We highlighted SDGs which are connected with the aspects in the referenced papers.

**Tab. 1** Results of the 'social character' analysis

An aspect of the social character	SDGs
Social needs, goals, and objectives	1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Social drivers and indicators	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Social challenges (incl. access to common goods and resources)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Social benefits of sustainable development	2, 3, 4, 6, 7, 9, 12, 13, 15, 16, 17
Social cost and tradeoffs related to sustainable development	1, 2, 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17
Social values	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Security and socisociaetal vulnerability	1, 2, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15, 17
Social organization and transformation	1, 2, 5, 7, 8, 12, 13, 14, 15, 16, 17
Social improvement and development	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17
Social involvement	3, 7, 8, 9, 11, 12, 13, 15, 16, 17
General social character of issues	1, 2, 3, 5, 9, 10, 12, 13, 17

The main attention is put on factors that determine general conditions and activities related to social effect (needs, goals, objectives, drivers, indicators, values). The social character is reflected by facilitators and inhibitors of the effect (mostly the economic ones) and current directions of its practical implementation (e.g., improvement, sustainable development, stakeholders' involvement).

The aspects cover all SDGs. However, even if the social character is mentioned, it does not fully match social security. Social security touches all SDGs in terms of social character, but the relationship is mostly indirect.

### 3.2. Characteristic Hazards in SDGs

Social hazards delineate a context of operations to ensure social security. To match the cohesion of the security specification elements, we extended to the popular hazards catalog (UNDRR, 2020) and considered all kinds of hazards with the potential social effect. After the papers' analysis, we enumerated the hazards references in table 2. Furthermore, we indicated their connections with the SDGs.

**Tab. 2** Results of the 'characteristic hazards' analysis

<b>An aspect of the characteristic hazards</b>	<b>SDGs</b>
General direction on hazards and threats	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Disaster (in general)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Climate change	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Weather (extreme, adverse)	1, 2, 3, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17
Flood and flooding	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Drought	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Fire	2, 3, 7, 8, 11, 12, 13, 14, 15, 17
Disease (incl. epidemic and pandemic)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
Conflicts and violence (incl. terrorism and organized crime)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17
Hazardous materials	2, 3, 6, 11, 12, 14, 15
Cyber threats	4, 6, 7, 9, 13, 15, 16, 17

The results prove that the SDGs implementation in the social security context may consider different, negatively perceived circumstances, in general (e.g., hazards, threats, disasters, climate change) and in particular (flood, fire, drought, etc.). Despite most hazards strictly refer to climate change and other sustainable development motivations, some of them are said to be derivative social security determinants (e.g., military conflicts, terrorism, cyber threats).

The hazards cover all SDGs. However, in opposition to the social character, the hazards strongly connect the goals to security issues as they express their general conditions and determine relevant operations.

### 3.3. Danger to Human Life and Health in SDGs

Danger to human life and health is specific to social security because it regards a common, particularly social character of the hazards influence (no matter of descent, social status, religion, pigmentation, etc.). Table 3 presents particular aspects identified in the literature analysis and ascribed to the SDGs.

**Tab. 3** Results of the ‘danger to human life and health’ analysis

<b>An aspect of the danger to human life and health</b>	<b>SDGs</b>
Relation with the characteristic hazards	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17
Direct impact on human life and health	1, 2, 3, 4, 6, 7, 11, 13, 15, 16, 17
Indirect impact (incl. potential to imitate cascading effect of hazards development)	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17
Relation with factors lowering a level of living (existence) conditions (e.g., access to food, drinking water)	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17

Danger to human life and health is so evident in the context of social security and relatively hard to in-depth division that its analysis was problematic from a practical perspective. Nevertheless, focusing on the SDGs allowed to identify four aspects considered by the authors of the papers.

Almost all SDGs are covered. SDG5 and SDG9 are missed supposedly due to their specification. Like in the case of the hazards (and in relation to them), the aspects strongly meet the security issues. Nevertheless, many papers prove that this element is significantly less mentioned in the literature than the previous two.

### 3.4. Urgency of the Response in SDGs

Even if sustainability is long-term oriented, the urgency of the response regards factors specific also for the conditions related to the SDGs (e.g., climate change consequences). Table 4 presents particular aspects concluded based on the literature review and ascribed to the SDGs.

**Tab. 4** Results of the ‘urgency of the response’ analysis

<b>An aspect of the response urgency</b>	<b>SDGs</b>
Urgent need of the response	2, 3, 6, 8, 12, 13, 15, 16, 17
Relation with the characteristic hazards	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17
Emergency references	1, 2, 3, 6, 10, 11, 12, 13, 15, 16, 17
Involvement of first responders	3, 11, 17

We named four aspects that should be highlighted in the context of the response urgency. Only SDG5 and SDG9 are not covered by this specification element. Moreover, the element is mentioned in the lowest number of papers. Considering its core importance for the social security understanding, this highlights a serious merit-related gap in the literature.

#### **4. Discussion**

The systemic review indicates the distribution of particular SDGs in the literature. Some differences reflect multiple interests of researchers in the light of social security specification elements. The highest number of papers regards matters of SDG2, SDG13, and SDG17. It stems from conditions of the characteristic hazards as they could have their sources in climate change consequences and hunger. In addition, they often require a wide stakeholders' involvement and coordination of their common operations (Bouma, 2015). The rest of the SDGs are not comprehensively covered by the literature but could inspire sustainability research for social security. Quite interesting from this point of view is SDG11, which connects safety and resilience with sustainability and inclusiveness in accordance with cities and human settlements (Gheuens et al., 2019) as well as the goals related to other potential sources for the hazards (SDG6, SDG14, SDG15, and SDG16).

A very strong relationship is observed for the social character. The relation is noticed in nearly all of the papers. The following aspects turned out as the most perspective: social needs, goals and objectives, social drivers and indicators, social challenges, social values, improvement, and development. Authors indicated current world development trends, focusing on social improvement and development, social organization and transformation (Eliasson et al., 2019; Yadav et al., 2020). It justified that the social character seems obvious, perspective, sustainability issue in the social security context.

We noticed an influence on the most important utilitarian values when characteristic hazards were analyzed. The hazards' references can be divided into general (general direction on hazards and threats, disaster, climate change) and particular (extreme or adverse weather, flood and flooding, drought, fire, disease, conflicts and violence, hazardous materials, and cyber threats). In all cases, the social character of their impact is identified. Climate change is undoubtedly the most severe hazard and source of the derivative ones (e.g., extreme weather, flood, drought) (Gheuens et al., 2019; Rao et al., 2019). That is why it connects many SDGs into one, social security background. There was highlighted that the SDGs-related hazards have the potential to exceed coping society abilities. Understanding them as disasters opens for many ways to sustain human life and health (e.g., 2030 Agenda). We noticed that researchers interest matches current social security challenges. It justifies why so many papers deal with diseases and their epidemic (pandemic) potential. Nevertheless, as we used a broad analytical framework for the hazards investigation, the results are not limited to the UNDRR catalog of social hazards (armed conflicts, civil unrest, explosive remnants of war, environmental degradation from conflict, violence, stampede or crushing, financial shock) (UNDRR, 2020). It motivates further discussion about the need to collect all social-oriented hazards into one meaning category (e.g., branch of safety or security) to inspire theorists and practitioners to protect human life and health in danger, regardless of circumstances, especially when the hazards analysis covers all SDGs.

Danger to human life and health seems to be the core element of the social security specification. However, it is not obvious in terms of sustainable development. It does not correspond to SDG5 and SDG9, which could result from the goals' scope. Nevertheless, the analysis results indicate cognitively interesting directions for further analysis (e.g., cascading effect, lowering a level of living or even existence conditions). They constitute this element, next to the relation with the characteristic hazards, direct or indirect impact on human life and health, and the relation with the factors lowering the level of living (existence) conditions (e.g., access to food, drinking water).

The same coverage of SDGs (all goals without SDG5 and SDG9) is observed in the urgency of the response. It has a background in relation with the characteristic hazards, as there is no time for delays in the conditions of floods, wildfires, etc. and is determined by emergency references (state of emergency, emergency management, etc.) (Kakkar et al., 2014) and also ascribed to the long-term political decisions and approaches for sustainable development (Al-Saidi, 2017). Even if this specification element deals with SDG17 (cooperation matters), it regards emergency first responders in a very limited way. This gap could be relatively quickly filled by the critical implementation of other SDG17 approaches and solutions, increasing capabilities to protect human life and health in different (not only emergency) circumstances.

Summarizing the results, there are three significant trends to be mentioned. Firstly, the more universal the social security specification element is, the more SDGs it covers, and the more links to sustainable development can be identified (more SDGs and more papers). Secondly, the goals are formulated at the high level of generality, and their meaning contexts are connected. Thus, the following exemplary connections are noticed in the social security background: SDG1 with SDG16, SDG2 with SDG15, SDG4 with SDG 9, SDG6 with SDG 14, SDG7 with SDG13, SDG7 with SDG15. It corresponds with a general impression about the network structure of the SDGs (Scharlemann et al., 2020; Dolley et al., 2020) and is specific for the area of interest (Gheuens et al., 2019). Thirdly, despite SDGs connections and universalism of some of the elements, we can mark gaps in relations between social security and SDGs. Table 5 presents a view of them.

**Tab. 5** Matrix with the analysis results

SDGs	Danger to human life and health	Social character	Response urgency	Characteristic hazards
SDG1	D/ID	D/ID	D/ID	D/ID
SDG2	D/ID	D/ID	ID	D/ID
SDG3	D/ID	D/ID	ID	D/ID
SDG4	D/ID	D/ID	ID	D/ID
SDG5	-	D/ID	-	D/ID
SDG6	D/ID	D/ID	ID	D/ID
SDG7	D/ID	D/ID	ID	D/ID



SDGs	Danger to human life and health	Social character	Response urgency	Characteristic hazards
SDG8	D/ID	D/ID	ID	D/ID
SDG9	-	D/ID	-	D/ID
SDG10	ID	D/ID	ID	D/ID
SDG11	D/ID	D/ID	ID	D/ID
SDG12	ID	D/ID	ID	D/ID
SDG13	D/ID	D/ID	ID	D/ID
SDG14	ID	D/ID	ID	D/ID
SDG15	D/ID	D/ID	ID	D/ID
SDG16	D/ID	D/ID	ID	D/ID
SDG17	D/ID	D/ID	ID	D/ID

Gaps concerning SDG5 and SDG9 are noticeable. Most of the relations with the response urgency are indirect. Just like in SDG10, SDG12, and SDG14, due to danger to human life and health.

## 5. Conclusions

The most important utilitarian values are human life and health. They are widely, directly and indirectly, placed in the sustainable development agenda. Particular SDGs find their expression in elements of the social security specification (social character, characteristic hazards, danger to human life and health, urgency of the response).

The social character of the security in terms of sustainability is noticeable in the needs, goals and objectives, drivers and indicators, challenges, benefits, cost and trade-offs, values, vulnerabilities, stakeholders' involvement, social organization and transformation, social improvement and development. All these aspects prove that the SDGs are society-oriented, and everybody deserves to benefit from sustainable development results, regardless of geographical region, skin color, religion, gender, etc.

In case of the characteristic hazards, the goals are described in the context of a flood, flooding, fire, drought, disease, conflicts and violence, hazardous materials, cyber threats, and other kinds of hazards related to climate change, natural environment, and disasters. The primary factor is climate change which could initiate cascading effect of the hazards' development and the derivate hazards. The SDGs are related to the hazards' specification (e.g., SDG1 and SDG2 to violence, SDG13 with floods and droughts).

Danger to human life and health can be described in relation to the characteristic hazards, the character of impact on the most important values (direct or indirect), and relation with factors lowering a level of living (existence) conditions. That forces to investigate the social security and SDGs using a broad spectrum of life, living and existence conditions, and

creates many areas of common, simultaneous achievement of the goals. It concerns mostly all SDGs (without SDG5 and SDG9).

Considering the urgency of the response, four aspects should be enumerated. There are urgent needs of the response (not limited to the emergencies but concerning also immediate prevention operations), of relation with the characteristic hazards, of emergency references (state of the emergency, emergency management, etc.), and involvement of first responders (mostly public administration and public services). It is regarded to the SDGs just like in the case of the previous element.

In addition, the review highlighted gaps identified for SDG5 and SDG9 (in relation to danger to human life and health and the response urgency) and the response urgency and danger to human life and health.

Summing up, the aspects named for the social security specification in its correspondence to the SDGs can serve as cognitive structures for further research and practical efforts for sustainable development, just like information about the gaps, especially when more detailed topics can be used to explore the literature (e.g., ‘disaster’, ‘sustainability’, ‘flood’, ‘human life’, ‘human security’) and formal or quasi-formal catalogs of hazards can be considered (e.g., UNDRR).

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## Appendix 1. Particular results of the systemic literature review

	SDG1	SDG2	SDG3	SDG4	SDG5	SDG6	SDG7	SDG8	SDG9	SDG10	SDG11	SDG12	SDG13	SDG14	SDG15	SDG16	SDG17	Danger to human life and health	Social character	Urgency of the response	Characteristic hazards
Bracken et al., 2020	ID	ID	ID		D	D	ID	ID	D	ID	D	D	D	ID			D	D	D		D
Chiaromonti, Maniatis, 2020		ID	ID			D	D	D		ID	ID	D	D					D	D		D
Yadav et al., 2020	D			ID		D	D	D		ID	D		D	ID	ID	ID		D			D
Bitso et al., 2020	ID	ID	ID	D	ID	ID	ID	ID	ID	ID	D	ID	ID	ID	ID	ID	ID		D		D
Whitcraft et al., 2019		D			D	D						D	D	D	D		D			ID	D
Liu et al., 2019		D				ID					D	D	D		ID			D			D
Rao et al., 2019	D	ID		ID	ID						ID	ID	D	ID		ID	ID	ID	ID		D
Serrano-Tovar et al., 2019	ID	ID		ID	ID	ID	ID	ID	ID	ID	ID	D	ID	D	ID			D			D
Eliasson et al., 2019	ID	D		D	D			ID		ID	ID	ID	D	ID	ID	ID	D	D	D		D
van Rees et al., 2019			ID		D						D						ID	D	D		ID
Stehfest et al., 2019	D	D				ID	ID	ID			D	D	ID		D	ID	ID	D	D		ID
Fujimori et al., 2019		D				ID						D	D	D	ID			ID	D		ID
Arias et al., 2019		D									ID	D	D	ID	ID	D	D	D	D		ID
Gheuens et al., 2019	ID	ID		D	D	ID	ID	ID		D	D	D	D		ID	ID	ID	ID	D		D
Guo, Song, 2019		ID				D			D	D	D	ID			ID			D			D
Roy, Pramanick, 2019	D	D	D	D	D												ID	ID	ID		D
Tvaronaviciene, 2019			ID					ID									ID	D	D	ID	D
Rao et al., 2018	D	D	ID	D	D				ID	ID	D	D	ID		ID	ID	ID	ID	ID		D
Brecha, 2019	D	D	D	D	D			D													ID
Suk et al., 2018						D			ID								ID	ID	ID		ID
Lah, Lah, 2018						ID					ID	ID	D		ID	ID	D	ID	D	ID	ID
Brauch, 2018						ID						ID	ID			D	D	ID	ID		ID
Mabhaudhi et al., 2019	D	D	D	D	D		D	D				D	D		D	D	D	ID	ID		D

	SDG1	SDG2	SDG3	SDG4	SDG5	SDG6	SDG7	SDG8	SDG9	SDG10	SDG11	SDG12	SDG13	SDG14	SDG15	SDG16	SDG17	Danger to human life and health	Social character	Urgency of the response	Characteristic hazards
Yuk-ping Lo, 2018			D					ID									ID	ID	D	D	D
Moreira, Lopez, 2018	D		ID	ID	ID	ID		ID			ID		ID	ID			D	ID	D	ID	ID
Werther-Pietsch, 2018	D								D	ID	ID				D		ID	ID	D	ID	ID
Blanchard et al., 2017	D	D	D						D	D		D	D	D	D			ID	ID		ID
Cleveland et al., 2016			D															D	ID	D	D
Al-Saidi, 2017				D												D	ID	D	D	ID	D
Dell'Angelo et al., 2017	D	D	D	D	D	D	D	D	D	D	D	D	D	D	ID	D		D	D	D	ID
Lah, 2017			D			D	D	ID			D		ID				D	ID	ID		ID
Lehnert et al., 2016				D		ID	D	D	D				D		ID	ID	ID	ID	ID		ID
Klimova et al., 2016			D														ID		ID		
Keairns et al., 2016		ID					ID				ID		ID				D	D	D		ID
Alrøe et al., 2016		D															ID	ID	ID		ID
Bhaduri et al., 2016	ID	ID	ID	D	D	D				ID	ID	ID	ID	ID	ID			D	D		D
Fanzo, 2015	D	D	ID							ID	ID							ID	D	D	ID
Lemmen et al., 2015	ID	ID		ID	ID								ID				ID	ID	ID		ID
Bouma, 2015	D	D		D	D	D	ID			ID	D	D	D	D	D			ID	D	D	D
Pérez-Alfocea, 2015	D	D									ID		ID		ID			ID	D	D	D
Kakkar et al., 2014			D								ID						D	D	ID	ID	ID
Cottes, 2013						ID		ID	ID				ID		ID			D			
Lal, 2013		D		ID	ID	ID	ID						D		D		ID	ID	ID		D
Bedunah, Angerer, 2012	D	D	ID	ID				ID	ID		ID				D			D	D		D
Munang et al., 2011		D	ID	ID	ID							D	D	D	D		ID	D	D		D
Koh, Ghazoul, 2008	ID		ID	ID	ID	ID	D					ID	ID		D			D	D	ID	D
Korba, 2003																	D	ID	D	ID	ID