

# Social Issues in Sustainability Assessment of Food

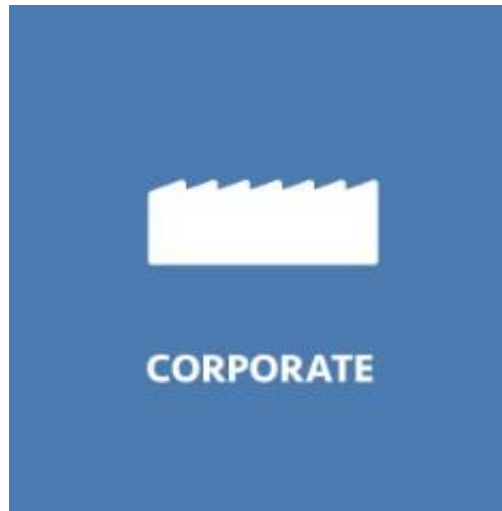
EFFoST seminar ,Sustainability assessment of the food chain: how to do it scientifically and practically?' within the seminar series on ,Sustainable Food Systems: Connecting Expertise in Academia and Industry'

Ulrike Eberle, PhD

22 October 2021

# corsus

## – the sustainability consultancy



*„We are enthusiastic about making value-oriented changes and inspiring you to embrace sustainability.“*

## – the sustainability consultancy

HUMAN RIGHTS  
DUE DILIGENCE  
AND  
SUPPLY CHAINS

SUSTAINABILITY  
STRATEGIES

SUSTAINABILITY  
ANALYSIS AND  
ASSESSMENT

PROCESS AND  
MODERATION

LIFE CYCLE  
ASSESSMENT  
AND  
CARBON  
FOOTPRINT

ECONOMIC  
AND  
SOCIAL  
SUSTAINABILITY  
ANALYSIS

SUSTAINABILITY  
REPORTING

COMMON  
GOOD  
BALANCE SHEET

# corsus – the team



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# corsus - references

*„Your expert opinion is extremely helpful for us and has definitely given us a few "aha" moments. We will be happy to use your advice again “*

*Marie Wendling, Sustainability Manager, Danone D-A-CH*

*„corsus has been advising us competently on all sustainability topics for many years and always brings the latest findings into the consultation on our sustainability strategy. “*

*Ralph Beranek, Executive Director, Seeberger GmbH*

*„corsus helped us a lot with the conceptualisation and management of the entire project. Especially the structured approach, the professional moderation of the workshops paired with expertise in municipal processes and sustainability management help us to successfully implement the model project and to fulfil the mandate of the policy.“*

*Arno Frost, Head of the Budget Department in the City of Kiel's Treasury and Tax Office*

*„The accompanying critical review and the well-founded life cycle assessment expertise of corsus greatly support us in integrating life cycle assessments into our enterprise resource planning system.“*

*Urban Buschmann, Head Sustainability & Packaging Development, FRoSTA AG*

# FOOD & SUSTAINABILITY

# Sustainable Development

“Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Brundtlandt et al. 1987

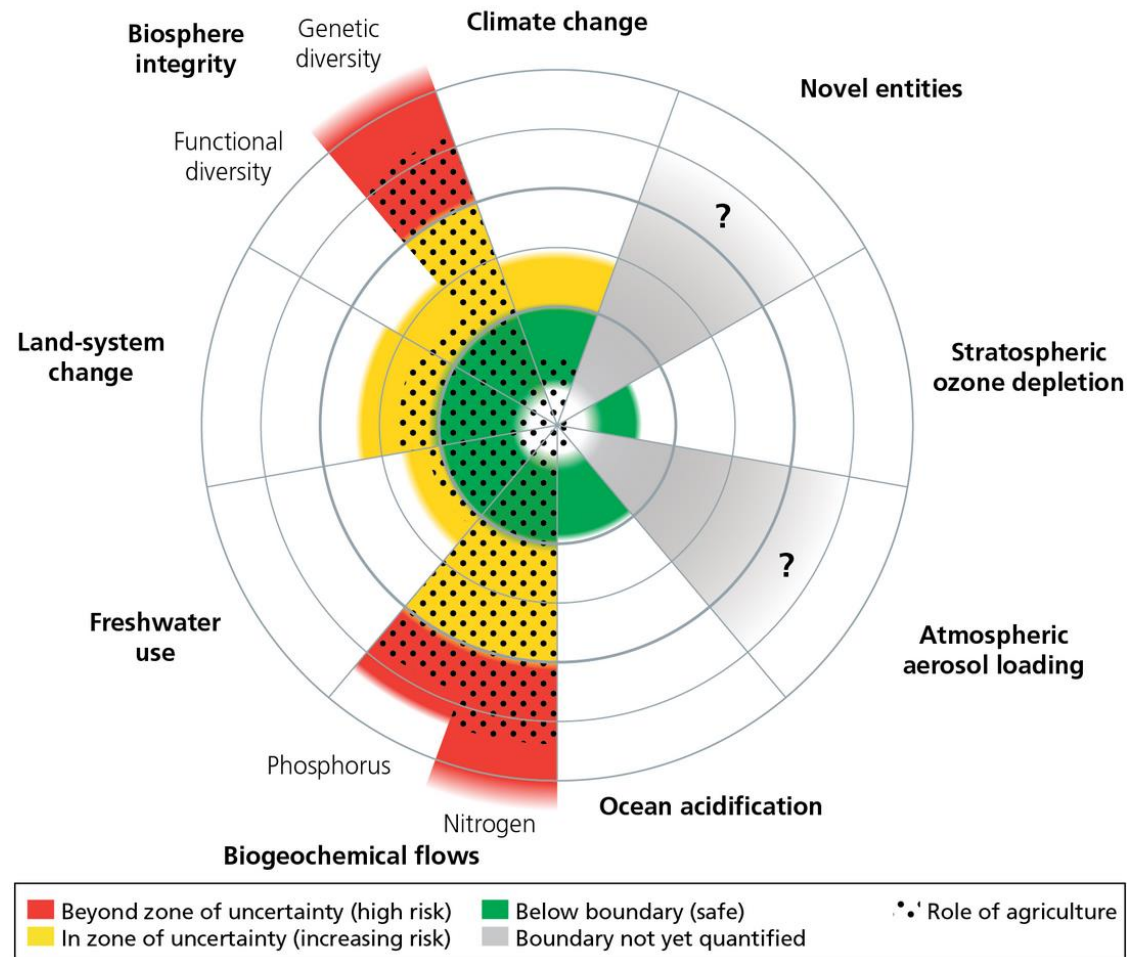
# UN Sustainable Development Goals



UN 2015



# Planetary Boundaries and agriculture



Campbell et al. 2017

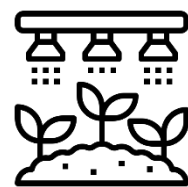
# Our food system is not environmentally sustainable



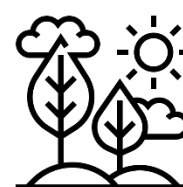
80% of global deforestation



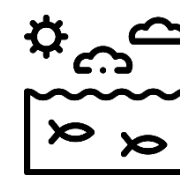
29% of global greenhouse gas emissions



70% of global freshwater resources



70% of terrestrial biodiversity losses



50% of marine & freshwater biodiversity losses



52% degradation of agricultural land

# Our food system is not socially sustainable

- Violation of human rights & ILO core labour standards
- Lacking access to clean drinking water & adequate sanitation
- Living wage is not standard
- Child labour is still a problem - 246 million children are involved in child labour - that's one in six children aged 5-17
- Modern slavery is still a problem in some countries - also and particularly in agriculture - 27 million people living in slavery worldwide
- One out of nine people is undernourished and suffers from hunger (795 million)
- Two out of nine people are overweight or obese (1.9 billion)



# Dietary habits are changing



In recent decades, global meat consumption has increased dramatically.

The share of highly processed foods is continuously increasing worldwide.

Our eating habits are leading to an increase in diet-related diseases.

The land-consuming eating habits of the industrialised countries, but also increasingly of the emerging countries, significantly determine the land use of food production.

# Sustainable food and nutrition

„Sustainable food & nutrition is environmentally friendly and health promoting, ethically responsible, adequate for everyday life and allowing for socio-cultural diversity.“

Eberle/Hayn 2007

# SUSTAINABILITY EVALUATION OF PRODUCTS

# Companies and the SDGs

*"Business is a vital partner in achieving the Sustainable Development Goals. Companies can contribute through their core activities, and we ask companies everywhere to assess their impact, set ambitious goals and communicate transparently about the results."*

Ban Ki Moon 2015



# Identification of product-related targets and indicators

- In the research project „SDG Evaluation of Products“ an approach was developed to assess the sustainability of products
- The 169 targets of the 17 SDGs were analysed with regard to the possible contribution of products (and companies) to their achievement
- Result: 59 of the 169 targets could be related to products and services
- On this basis 45 indicators were defined
  - 25 directly measure the contribution of the product or service (C1)
  - 20 measure the contribution of the companies involved along the life cycle (C2)
- All C2-indicators are measure socio-economic impacts



# Socio-economic indicators

| #    | SDG   | INDICATOR   | #     | SDG                  | INDICATOR  |
|------|---|---|-------|----------------------|--|
| C2.1 | 1.1   | Workers earning below poverty line of 1.90\$/day  | C2.4  | 2.5                  | Number of used breeds / varieties  |
| C2.2 | 1.3   | Coverage of social security support   | C2.5  | 3.8                  | Share of employees covered by health insurance or a public health system   |
| C2.3 | 2.4, 3.6, 5.1, 6.5, 6.6, 7.3, 8.7, 8.8, 9.3, 12.2, 12.3, 12.4, 13.2, 14.2, 15.1-15.6, 15.8, 15.9, 15.a, 15.b, 16.5, 16.a, 17.7, 17.11, 17.16, 17.17 | Coverage of product-related sustainability (risk) management:<br>a: sustainable agriculture<br>b: driver/passenger safety/reduction of accidents<br>c: equal opportunities<br>d: water use & scarcity<br>e: natural resources<br>f: food losses<br>g: chemicals<br>h: waste<br>i: climate change<br>j: marine biodiversity<br>k: terrestrial & freshwater biodiversity<br>l: patents on natural resources<br>m: corruption prevention<br>n: human rights<br>o: promotion of environmental sound technologies in developing countries<br>p: energy efficiency<br>q: small scale suppliers/industry borrowers in supply chain (particular from LDC)<br>r: share of products/materials from DC<br>s: Investments in conservation and sustainable use of biodiversity/ecosystems<br>t: Engagement in multi-stakeholder partnerships for sustainable development | C2.6  | 3.9, 8.8             | Number of, time loss or frequency rates of fatal and non-fatal occupational injuries   |
|      |   |   | C2.7  | 3.9, 8.8             | Access of workers to protective clothing   |
|      |   |   | C2.8  | 4.4, 4.7, 13.3, 16.5 | Share of employees trained in sustainability issues:<br>a: ICT skills<br>b: sustainability in general<br>c: climate change<br>d: corruption prevention |
|      |   |   | C2.9  | 4.5                  | Average hours of training per employee by share of men/woman   |
|      |   |   | C2.10 | 5.1, 8.5             | Ratio of average hourly wage of men to women   |
|      |   |   | C2.11 | 5.5                  | Share of women in managerial positions at all hierarchy levels   |
|      |   |   | C2.12 | 6.1                  | Availability of safely managed drinking water at work  |
|      |   |   | C2.13 | 6.2                  | Availability of lockable sanitation at work, including a hand-washing facility with soap and water   |
|      |   |   | C2.14 | 6.3                  | Percentage of safely treated wastewater flows  |
|      |   |   | C2.15 | 8.6                  | Share of employees (incl. apprenticeships) under 24  |
|      |   |   | C2.16 | 8.7, 8.8             | Fulfillment of ILO conventions by sex<br>a: freedom of assembly<br>b: child work<br>c: forced labour<br>d: discrimination<br>e: collective bargaining  |
|      |   |   | C2.17 | 9.5                  | Investments in R&D   |
|      |   |   | C2.18 | 10.2                 | Relative poverty rate (50% of median disposable income)  |
|      |   |   | C2.19 | 10.3                 | Palma Ratio  |
|      |   |   | C2.20 | 12.6, 12.8, 14.4     | Sustainability information about the product (incl. value chain) publicly available  |

Eberle et al.  
2020a, pp.  
29/30

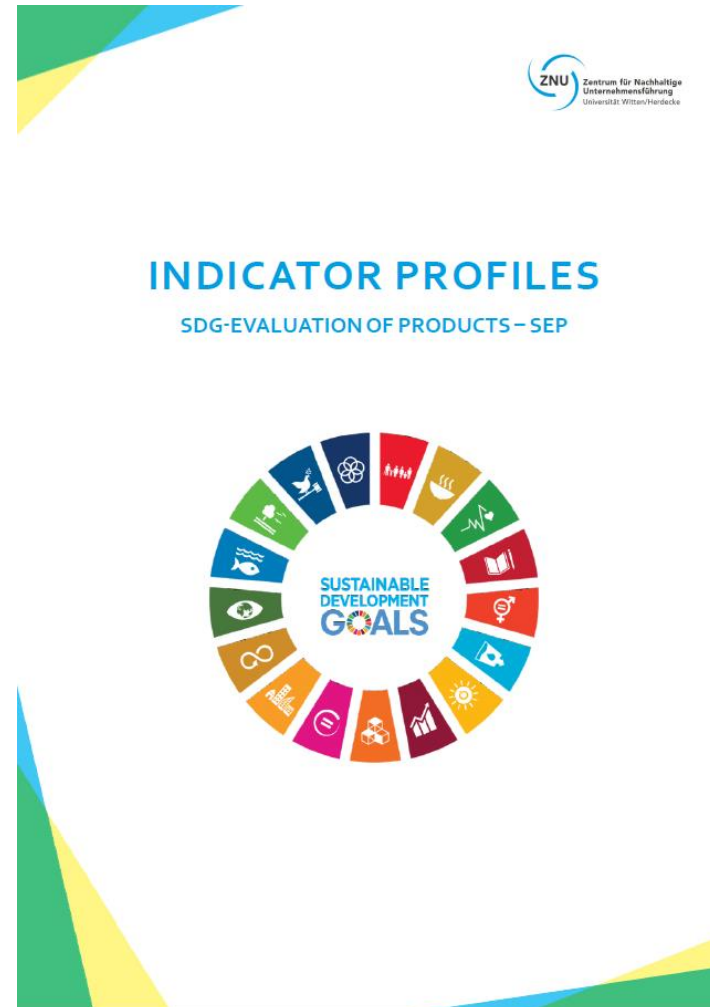
## - SEP

- **System analysis:** This is the basis for carrying out a sustainability assessment, as the system under consideration is analysed here. At *SEP*, this is carried out analogously to the procedure described in ISO 14040/44.
- **Sustainability Indicators:** These are *SEP*'s measurements and are pre-defined. This ensures that contributions to the SDGs of Agenda 2030 are measured and that this is done in a uniform manner. In *SEP*, 45 indicators have been defined, 22 of which are core indicators that must be used in a product sustainability evaluation.
- **Sustainability Evaluation:** This is the core of the method and aims to measure the contribution of the product or service to the respective SDGs using the defined indicators. At the level of the individual indicators, the result shows in which of the addressed sustainability issues the product is already good and in which there is still need for improvement.

Eberle et al. 2020a, p. 6



# Sustainability Evaluation of Products - SEP



Download:

<https://www.sdg-evaluation.com/>

# SUSTAINABILITY EVALUATION OF PRODUCTS – ASSESSMENT OF SOCIOECONOMIC ISSUES

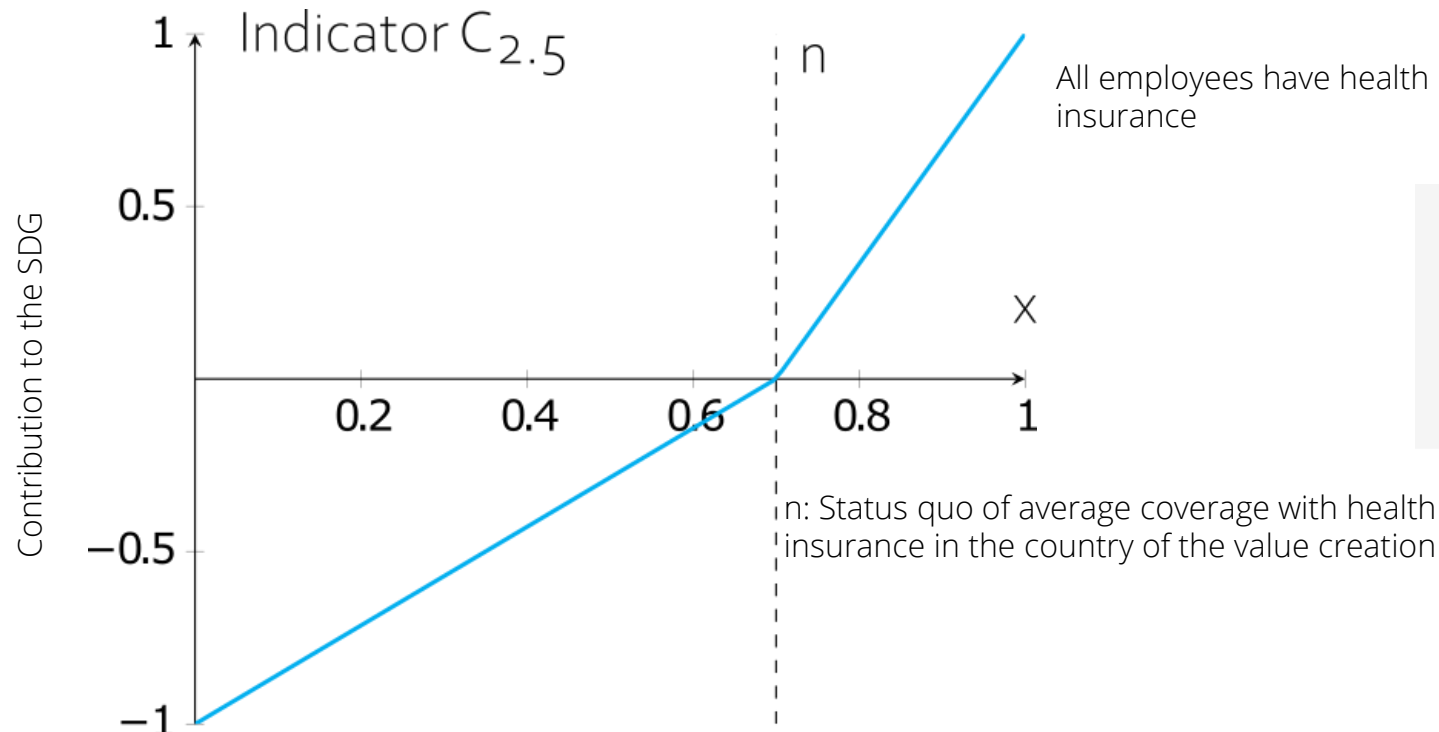
# Assessment of socioeconomic impacts

- +1 : the product contributes fully to the achievement of the SDG
  - 0 : the status quo is maintained
  - -1 : the product has negative impacts
- 
- Definition of status quo in the specific country
    - Assessment possible at any time and compatible with life cycle assessment
    - Continuous adjustment of the status quo
    - In some countries, data may still be scarce, but may become increasingly available in the future



# Indicator C2.5 Health insurance

SDG 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

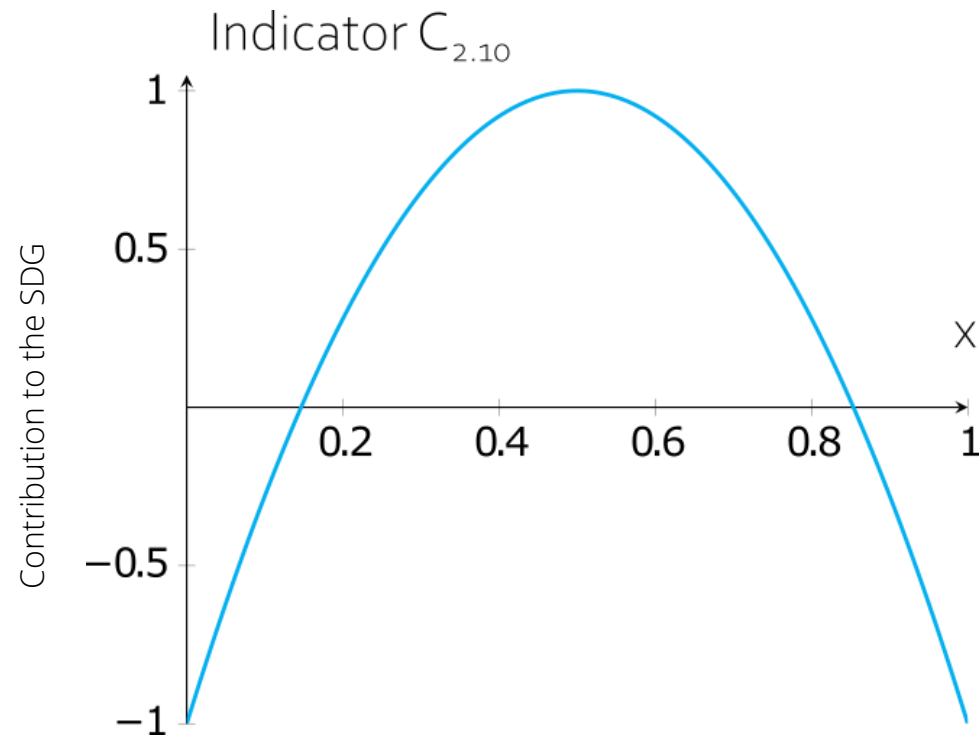


$$C_{2.5} = \begin{cases} 0, & \text{for } n = 1 \\ x * \frac{1}{n} - 1, & \text{for } x < n \\ x * \frac{1}{(1-n)} - \frac{n}{(1-n)}, & \text{for } x \geq n \end{cases}$$

Eberle et al. 2020b, p. 22

# Indicator C2.10 Equal wages for men and women

SDG 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value



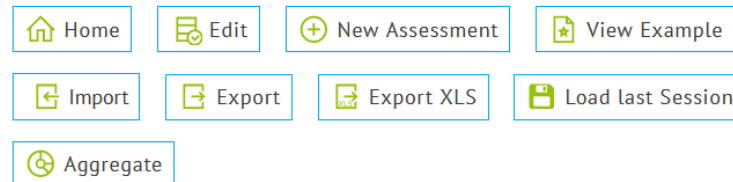
$$C_{2.10} = -8 * (x - 0.5)^2 + 1$$

Eberle et al. 2020b, p. 27

# ProFitS



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## ProFitS - Products Fit for Sustainability

So far, hardly any methods exist for the integrated analysis and evaluation of the sustainability of products and services. A major reason for this is that until recently there was no globally uniform and accepted target system or evaluation standard. With the United Nations' Agenda 2030 adopted in September 2015 and the 17 Sustainable Development Goals and 169 targets contained therein, this is now available. Beyond life cycle assessments, product sustainability analyses and integrated sustainability assessments are often required in the political arena today.

The aim of the research project "SDG assessment - further development of a sustainability assessment method based on the Sustainable Development Goals of the United Nations (Agenda 2030)", which is funded by the BMBF, is therefore to (further) develop a method for integrated product sustainability analysis and product sustainability assessment. The method development is supported by four case studies from the food, cosmetics & hygiene, IT products and mobility industries and leads to the conception of a software tool for different sectors and areas of need.

The project was carried out jointly by ZNU – Centre for Sustainable Leadership at the University Witten/Herdecke (project management) and the Öko-Institut e.V. (Institute for Applied Ecology).

The method is described in depth in the brochure *SEP – SDG Evaluation of Products*, available at [www.sdg-evaluation.com](http://www.sdg-evaluation.com). The brochure gives the background information on the indicators developed for *SEP – SDG Evaluation of Products*.

(c) Öko-Institut e.V. + ZNU - Zentrum für nachhaltige Unternehmensführung

<https://www.sdg-evaluation.com/profits-products-fit-for-sustainability>



**I AM HAPPY TO ANSWER YOUR QUESTIONS**

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[www.corsus.de](http://www.corsus.de)

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[www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A\\_RES\\_70\\_1\\_E.pdf](https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf)

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