



March 2025

# Impact Report for Netherlands



Financial Market Chapter



## Imprint Publisher

Authors: VBA Financial Market Chapter Dimitrij Euler and Magdalena Wottke, WifOR Institute Rita Maghularia and Lorenz Röttger. Layout and Format by Mirjeta Rexhaj, Value Balancing Alliance and Katja Wies, WifOR Institute.

Contact Information: Value Balancing Alliance e.V.; Bockenheimer Landstraße 22; 60323 Frankfurt am Main, Germany; Email: [info@value-balancing.com](mailto:info@value-balancing.com); Phone: +49 069 153293610; WifOR Institute; Rheinstraße 22, 64283 Darmstadt, Germany; Email [kontakt@wifor.com](mailto:kontakt@wifor.com); Phone +49 615 1501550.

Copyright and Licensing: This report is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0).

License Deed: You are free to share and adapt the material for any purpose, even commercially, under the terms of this license. Please attribute appropriately, link to the license, and indicate if changes were made.

Notices: You are not required to comply with the license for elements of the material in the public domain or where an applicable exception or limitation permits your use.

No warranties are given. The license may not grant all permissions necessary for your intended use.

## Disclaimer

The Value Balancing Alliance e.V. and WifOR Institute strive to ensure that the information provided in this presentation is as complete and correct as reasonably possible. However, it assumes no responsibility or liability for the completeness, accuracy, or validity of the information provided.

All information, material, and content in this document are provided 'as is', without representation or warranty. The Value Balancing Alliance e.V. and WifOR Institute furthermore assume no responsibility or liability for any third-party content linked to or indirectly referenced.

The Value Balancing Alliance e.V. and WifOR Institute are not liable for direct or indirect damages, including loss of profit, that may arise from or in connection with the information in this presentation. Use of its contents is at your own risk, and the Value Balancing Alliance e.V. and WifOR Institute expressly disclaims liability for any use.

Copyright or trademark laws may apply to all product, company and service names mentioned herein.

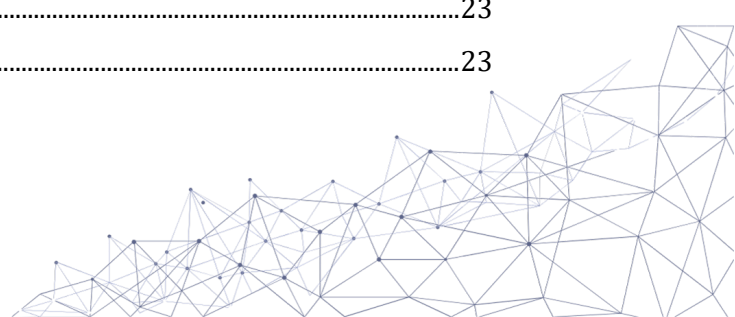
This report does not necessarily reflect the opinions of the individual members of the Working Group.

Date of Publication: 2025. Suggested Citation: VBA et WifOR., Impact Intensity Benchmarks, Impact Report Netherlands, 2025, [www.value-balancing.com](http://www.value-balancing.com).



## Contents

|   |    |
|---|----|
| Introduction.....   | 1  |
| Responsibility of States .....  | 2  |
| Responsibility of Business .....  | 2  |
| Interplay .....   | 2  |
| Accountability .....  | 3  |
| Benchmarks .....  | 3  |
| Intensities .....   | 3  |
| Sector Intensity Benchmarks.....  | 4  |
| Agriculture, Forestry and Fishing (A) .....                                     | 4  |
| Mining and Quarrying (B) .....  | 5  |
| Manufacturing (C) .....   | 6  |
| Electricity, Gas, Steam and Air Conditioning Supply (D).....                    | 7  |
| Water Supply; Sewerage, Waste Management and Remediation Activities (E).....    | 8  |
| Construction (F) .....  | 9  |
| Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G).....   | 10 |
| Transportation and Storage (H) .....  | 11 |
| Accommodation and Food Service Activities (I).....                              | 12 |
| Information and Communication (J).....  | 13 |
| Financial and Insurance Activities (K).....                                     | 14 |
| Real Estate Activities (L).....   | 15 |
| Professional, Scientific and Technical Activities (M) .....                     | 16 |
| Administrative and Support Service Activities (N) .....                         | 17 |
| Public Administration and Defense; Compulsory Social Security (O) .....         | 18 |
| Education (P).....  | 19 |
| Human Health and Social Work Activities (Q).....                                | 20 |
| Arts, Entertainment and Recreation and Other Services and Activities (R&S)..... | 21 |
| Overview .....  | 22 |
| Environmental Impact NLD .....  | 22 |
| Total.....  | 22 |
| direct .....  | 23 |
| upstream tier 1 .....   | 23 |



|                        |    |
|------------------------|----|
| upstream tier 2 .....  | 24 |
| upstream rest .....    | 24 |
| Social Impact NLD..... | 25 |
| Total.....             | 25 |
| direct .....           | 26 |
| upstream tier 1 .....  | 26 |
| upstream tier 2 .....  | 27 |
| upstream rest .....    | 27 |
| Application .....      | 29 |
| Caveats .....          | 31 |
| Data Accuracy.....     | 31 |
| Impact Valuation.....  | 31 |
| Double Counting.....   | 32 |
| Economic Impact.....   | 32 |
| Netting Impacts .....  | 32 |



## Introduction

Understanding the societal impact of public policy on economic sectors is vital for fostering growth while achieving transition to a sustainable economy and other policy goals. To this end, this report offers key insights into the performance of specific sectors.

This document presents impact statements for Netherland's NACE sectors.<sup>1</sup> The tables show the *direct impact* of companies' own operations as well as the *upstream impact* along their supply chains.<sup>2</sup> Positive or negative impact values are quantified in monetary terms and divided by each sector's macroeconomic output. These '*Impact Intensities*' (expressed in EUR of impact per EUR of output) enable comparability across countries, sectors, and companies. The output part of the formula is based on a macroeconomic assessment and reflects overall sector turnover volume.

Impact Intensities are provided for each impact driver across four stages of a production value chain: own operations, upstream tier 1, upstream tier 2, and upstream tiers 3 to n.<sup>3</sup> Results are shown for specific countries — Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Korea, Spain, Switzerland, Türkiye, the UK, and the USA — as well as a global average.

The tables provide a foundation for 'Type 4' sector-based benchmarks;<sup>4</sup> companies can compare their reported or estimated impact with the table values. To ensure consistency, a company's impact must be monetized using the same value factor and scaled relative to revenue. In this way, company-specific Impact Intensity can be compared within the sector and across multiple sectors.

The comparison spans value chain stages within a company's control (own operations) and beyond (upstream). Impact Intensities are depicted for each upstream stage in the global supply chain, viewed from the perspective of the respective country. These stages are presented in tiers, enabling comparison with a company's global upstream supply chain. Note that these upstream impacts may not necessarily be located in the same country.

The values are modeled using input-output modeling, as outlined in the System of National Accounts.<sup>5</sup> WifOR compiles the hybrid multi-regional model based on WIOD, EORA, and

---

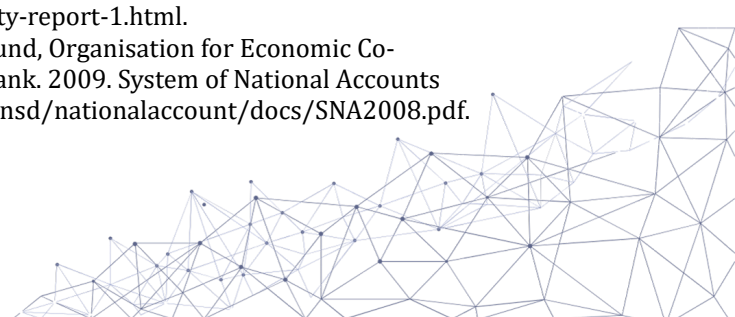
<sup>1</sup> Eurostat, NACE Rev. 2. Statistical classification of economic activities in the European Community, <https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.pdf>.

<sup>2</sup> VBA, VBA Impact Statement, 11.2024, [https://www.value-balancing.com/\\_Resources/Persistent/6/b/e/c/6bec726b5e28d5f75e2e5f153db845a3bbb93f2e/VBA\\_Impact%20Statement\\_Final.pdf](https://www.value-balancing.com/_Resources/Persistent/6/b/e/c/6bec726b5e28d5f75e2e5f153db845a3bbb93f2e/VBA_Impact%20Statement_Final.pdf).

<sup>3</sup> Tiers represent different levels of suppliers in the supply chain, where 'tier 1' refers to direct suppliers, 'tier 2' to the suppliers of those direct suppliers, and 'tier 3 to n' to all subsequent levels.

<sup>4</sup> VBA et al., Valuing Impact Materiality 2025, 2025, <https://www.value-balancing.com/en/publications/valuing-impact-materiality-report-1.html>.

<sup>5</sup> European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, and World Bank. 2009. System of National Accounts 2008. New York: United Nations. <https://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf>.



EXIOBASE,<sup>6</sup> enhanced by estimates based on *satellite accounts*, as outlined in the System of Environmental-Economic Accounting.<sup>7</sup> The modeled effects are then multiplied by publicly available context-specific value factors<sup>8</sup> to capture their societal impact.<sup>9</sup>

The tables are complemented by bar charts showing each impact driver's effect (in EUR per EUR output) in all the four value chain stages.

## Responsibility of States

States have a primary duty to protect human rights and fundamental rights under international law, in accordance with the primacy principle. This obligation extends to preventing human rights abuses by third parties (including businesses) within their jurisdiction. This duty is grounded in legal obligations and reinforced by policy rationales that ensure consistency in enforcement.

## Responsibility of Business

Businesses, by contrast, have a responsibility (rather than a duty) to respect human rights. Their role is supportive of state obligations but remains distinct. While international law has yet to fully define the extent of corporate human rights responsibilities, the UNGPs establish that businesses, at minimum, must prevent and address human rights harms linked to their operations. Beyond compliance with legal obligations, involvement in adverse human rights impacts must be prevented or remedied. Human rights due diligence is required for this purpose; this due diligence process includes assessing risks, integrating findings into corporate decision-making, and mitigating or remedying any adverse impacts.

## Interplay

The interplay between *state obligations* and *business responsibilities* reflects a layered system of accountability: While states bear legal obligations to regulate corporate behavior, businesses have a practical responsibility to prevent harm. These responsibilities arise in different forms—whether they cause, contribute to, or are linked to human rights abuses. The nature of corporate involvement in human rights impacts determines their level of responsibility, with leverage and mitigation playing a critical role in addressing violations. Thus, while business responsibilities complement state obligations, they remain distinct and non-parallel, ensuring a balanced but clear accountability framework.

---

<sup>6</sup> Scholz, Richard; Dorndorf, Tabea; Tesch, Jasmin; Köster, Robert; Croner, Daniel; Kalamov, Zarko; Setzer, Jana. 2025. Impact measurement using WifOR's sustainability footprint method. Methodological report. Version February 2025. WifOR Institute.

<sup>7</sup> United Nations, ed. 2014. *System of Environmental-Economic Accounting 2012: Central Framework*. New York, NY: United Nations.

<sup>8</sup> WifOR, Value Factors, <https://www.wifor.com/en/value-factors/#:~:text=Value%20factors%20convert%20physical%20units,dimensions%20and%20with%20financial%20indicators>

<sup>9</sup> Scholz, Richard; Albu, Nora; Croner, Daniel; Kalamov, Zarko; Mai, Lukas; Forin, Silvia; Tesch, Jasmin; Dorndorf, Tabea; Setzer, Jana. 2025. WifOR Impact Valuation. Methodological Report. Version February 2025. WifOR Institute.



## Accountability

While global businesses in the main complement state efforts and uphold responsible practices, international law establishes the primacy of state responsibility. States must create robust legal frameworks to hold businesses accountable, while companies must conduct human rights due diligence to prevent, mitigate, and remediate adverse impacts. Together, these obligations form a layered system, where corporate responsibility reinforces (rather than replaces) state duties to address human rights risks. Impact accounting helps states and businesses alike understand their respective responsibilities in the context of human rights and broader social, environmental, and economic impacts. While companies must assess their roles within supply chains and address potential harms, it is the states that bear the primary responsibility to tackle these issues and implement policies that prevent extensive negative impacts. Regulatory frameworks should go beyond preventing harm. They should empower businesses to generate positive impacts throughout the value chain. Neither states nor businesses may evade their responsibilities. States cannot plead powerlessness given that international treaties and criminal law extend their reach beyond national boundaries. By the same token, businesses cannot excuse harmful actions by pointing to weak state enforcement of human rights protections.

## Benchmarks

This document explores the impacts of Netherland's economy, focusing on direct and upstream supply chain impacts on the economic, environmental, and social domains. The analysis is based on the NACE classification of economic activities. Positive and negative impact values are quantified in monetary terms per unit of macroeconomic output (hereinafter "*Impact Intensities*"). The tables display these Impact Intensities in EUR per EUR output for each impact driver across five stages of the sector's value chain: own operations, upstream tier 1, upstream tier 2, and upstream tier 3 to n. The output data is derived from a macroeconomic assessment and reflects the turnover of each sector.

## Intensities

The tables help identify the domestic economic sectors with the largest impacts, across the country-specific value chain serving the Dutch economy. By providing maximum transparency on where significant impacts occur throughout the value chain stages, our analysis enables policymakers and regulators to more effectively manage the impacts. It supports the crafting of regulatory frameworks to mitigate negative and enhance positive impacts.



## Sector Intensity Benchmarks

### Agriculture, Forestry and Fishing (A)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.13  | -0.06           | -0.03           | -0.03         | -0.25 |
| Fair Wages                   | 0.02   | -0.97           | -0.45           | -0.38         | -1.77 |
| GHG                          | -0.12  | -0.04           | -0.02           | -0.03         | -0.21 |
| GVA                          | 0.37   | 0.22            | 0.15            | 0.2           | 0.95  |
| Human Rights                 | -0.00  | -0.02           | -0.01           | -0.01         | -0.04 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | -0.16  | -0.06           | -0.02           | -0.02         | -0.26 |
| Occupational Health & Safety | -0.01  | -0.13           | -0.06           | -0.05         | -0.25 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.00   | 0.00            | 0.00            | 0.00          | 0.01  |
| Waste                        | -0.02  | -0.01           | -0.00           | -0.00         | -0.04 |
| Water                        | -0.03  | -1.25           | -0.68           | -0.51         | -2.46 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Agriculture, forestry and fishing (NACE Code A), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Agriculture, Forestry, and Fishing sector in the Kingdom of the Netherlands reveals significant negative impacts across various categories, particularly in upstream tiers, with the highest negative impact observed in the Water category (-2.461689 EUR Impact per EUR Output). In contrast, the Fair Wages category shows the most substantial negative impact overall (-1.773689 EUR Impact per EUR Output), indicating a critical issue in labor conditions within the sector. Additionally, while some categories like Training and Ocean Plastic show negligible impacts, the consistent negative values across most categories highlight the sector's challenges in sustainability and social responsibility.





## Mining and Quarrying (B)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Fair Wages                   | 0.00   | -0.00           | -0.01           | -0.03         | -0.04 |
| GHG                          | -0.02  | -0.01           | -0.00           | -0.00         | -0.03 |
| GVA                          | 0.81   | 0.1             | 0.04            | 0.05          | 0.99  |
| Human Rights                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Occupational Health & Safety | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.00            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | -0.00  | -0.00           | -0.01           | -0.01         | -0.02 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Mining and quarrying (NACE Code B), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Mining and Quarrying sector in the Kingdom of the Netherlands indicates a predominantly negative impact across various categories, with the most significant negative impact observed in the Fair Wages category (-0.040796 EUR Impact per EUR Output), highlighting serious labor issues within the sector. Additionally, the Water category shows a substantial negative impact (-0.019384 EUR Impact per EUR Output), reflecting environmental concerns associated with water usage and pollution. In contrast, the Training category stands out with a positive impact (0.018688 EUR Impact per EUR Output), suggesting potential benefits from investments in workforce development amidst the overall negative trends.



## Manufacturing (C)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.02           | -0.02           | -0.03         | -0.07 |
| Fair Wages                   | 0.01   | -0.26           | -0.21           | -0.25         | -0.7  |
| GHG                          | -0.02  | -0.03           | -0.02           | -0.03         | -0.1  |
| GVA                          | 0.21   | 0.27            | 0.19            | 0.25          | 0.93  |
| Human Rights                 | -0.00  | -0.01           | -0.00           | -0.01         | -0.02 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | -0.00  | -0.01           | -0.01           | -0.02         | -0.05 |
| Occupational Health & Safety | -0.01  | -0.04           | -0.03           | -0.04         | -0.11 |
| Ocean Plastic                | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Training                     | 0.00   | 0.01            | 0.00            | 0.01          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Water                        | -0.00  | -0.32           | -0.23           | -0.21         | -0.75 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Manufacturing (NACE Code C), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Manufacturing sector in the Kingdom of the Netherlands reveals significant negative impacts across multiple categories, with the most pronounced negative impact in the Fair Wages category (-0.703991 EUR Impact per EUR Output), indicating severe labor-related issues. Additionally, the Water category also shows a substantial negative impact (-0.751213 EUR Impact per EUR Output), highlighting critical environmental concerns regarding water usage and pollution. In contrast, the Training category presents a positive impact (0.020912 EUR Impact per EUR Output), suggesting that investments in workforce development may provide some benefits amidst the overall negative trends in the sector.



## Electricity, Gas, Steam and Air Conditioning Supply (D)

| Variable                                | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|---|--------|-----------------|-----------------|---------------|-------|
| <b>Air Emission</b>                     | -0.01  | -0.01           | -0.01           | -0.01         | -0.04 |
| <b>Fair Wages</b>                       | 0.01   | 0.00            | -0.04           | -0.1          | -0.12 |
| <b>GHG</b>                              | -0.15  | -0.03           | -0.01           | -0.02         | -0.21 |
| <b>GVA</b>                              | 0.42   | 0.25            | 0.14            | 0.17          | 0.98  |
| <b>Human Rights</b>                     | 0.00   | -0.00           | -0.00           | -0.00         | -0.01 |
| <b>Invasive Species</b>                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Land Use</b>                         | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| <b>Occupational Health &amp; Safety</b> | -0.00  | -0.01           | -0.01           | -0.02         | -0.03 |
| <b>Ocean Plastic</b>                    | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Training</b>                         | 0.01   | 0.00            | 0.00            | 0.00          | 0.02  |
| <b>Waste</b>                            | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Water</b>                            | -0.00  | -0.00           | -0.02           | -0.05         | -0.08 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Electricity, gas, steam and air conditioning supply (NACE Code D), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Electricity, Gas, Steam, and Air Conditioning Supply sector in the Kingdom of the Netherlands shows significant negative impacts, particularly in the GHG category, which has the highest negative impact of -0.212952 EUR Impact per EUR Output, indicating serious environmental concerns related to greenhouse gas emissions. Additionally, the Water category also reflects a substantial negative impact (-0.076143 EUR Impact per EUR Output), highlighting issues with water usage and pollution in the sector. In contrast, the Training category demonstrates a positive impact (0.018992 EUR Impact per EUR Output), suggesting that investments in employee development may yield beneficial outcomes despite the overall negative trends in other areas.



## Water Supply; Sewerage, Waste Management and Remediation Activities (E)

| Variable                     | direct | upstream<br>tier 1 | upstream<br>tier 2 | upstream<br>rest | Total |
|------------------------------|--------|--------------------|--------------------|------------------|-------|
| Air Emission                 | -0.03  | -0.01              | -0.01              | -0.01            | -0.06 |
| Fair Wages                   | 0.03   | 0.00               | -0.08              | -0.12            | -0.17 |
| GHG                          | -0.07  | -0.05              | -0.01              | -0.02            | -0.16 |
| GVA                          | 0.37   | 0.28               | 0.15               | 0.17             | 0.96  |
| Human Rights                 | 0.00   | -0.00              | -0.00              | -0.00            | -0.01 |
| Invasive Species             | -0.00  | -0.00              | -0.00              | -0.00            | -0.00 |
| Land Use                     | 0.00   | -0.00              | -0.00              | -0.01            | -0.01 |
| Occupational Health & Safety | -0.00  | -0.01              | -0.01              | -0.02            | -0.04 |
| Ocean Plastic                | 0.00   | -0.00              | -0.00              | -0.00            | -0.00 |
| Training                     | 0.01   | 0.01               | 0.00               | 0.00             | 0.02  |
| Waste                        | -0.01  | -0.00              | -0.00              | -0.00            | -0.01 |
| Water                        | -0.00  | -0.00              | -0.08              | -0.09            | -0.17 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Water supply; sewerage, waste management and remediation activities (NACE Code E), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Water Supply; Sewerage; Waste Management and Remediation Activities sector in the Kingdom of the Netherlands indicates significant negative impacts, particularly in the GHG category, which shows a high negative impact of -0.155412 EUR Impact per EUR Output, reflecting serious environmental concerns related to greenhouse gas emissions. Additionally, the Water category also exhibits a substantial negative impact (-0.169371 EUR Impact per EUR Output), highlighting critical issues with water management and pollution. In contrast, the Training category presents a positive impact (0.021336 EUR Impact per EUR Output), suggesting that investments in workforce development may provide some benefits despite the overall negative trends in other areas of the sector.



## Construction (F)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.01  | -0.01           | -0.01           | -0.02         | -0.04 |
| Fair Wages                   | 0.04   | -0.02           | -0.04           | -0.12         | -0.15 |
| GHG                          | -0.00  | -0.01           | -0.01           | -0.02         | -0.05 |
| GVA                          | 0.33   | 0.25            | 0.16            | 0.21          | 0.96  |
| Human Rights                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.01           | -0.02         | -0.03 |
| Occupational Health & Safety | -0.00  | -0.01           | -0.01           | -0.02         | -0.04 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.01 |
| Training                     | 0.00   | 0.00            | 0.00            | 0.01          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Water                        | -0.00  | -0.01           | -0.01           | -0.04         | -0.06 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Construction (NACE Code F), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Construction sector in the Kingdom of the Netherlands reveals notable negative impacts across various categories, particularly in the Fair Wages category, which shows a significant negative impact of -0.150936 EUR Impact per EUR Output, indicating serious labor-related issues. Additionally, the Air Emission category reflects a considerable negative impact of -0.042888 EUR Impact per EUR Output, highlighting environmental concerns associated with emissions from construction activities. In contrast, the Training category demonstrates a positive impact (0.019572 EUR Impact per EUR Output), suggesting that investments in workforce development may yield beneficial outcomes despite the overall negative trends in other areas of the sector.



## Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (G)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Fair Wages                   | 0.03   | -0.01           | -0.03           | -0.06         | -0.06 |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.01         | -0.02 |
| GVA                          | 0.58   | 0.2             | 0.1             | 0.1           | 0.98  |
| Human Rights                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Occupational Health & Safety | -0.01  | -0.01           | -0.01           | -0.01         | -0.03 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.00   | 0.00            | 0.00            | 0.00          | 0.01  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | -0.00  | -0.00           | -0.02           | -0.03         | -0.05 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Wholesale and retail trade; repair of motor vehicles and motorcycles (NACE Code G), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles sector in the Kingdom of the Netherlands indicates notable negative impacts, particularly in the Fair Wages category, which shows a significant negative impact of -0.063133 EUR Impact per EUR Output, highlighting serious labor-related issues within the sector. Additionally, the Water category reflects a substantial negative impact of -0.052046 EUR Impact per EUR Output, indicating concerns regarding water management and pollution associated with trade activities. In contrast, the Training category presents a positive impact (0.014024 EUR Impact per EUR Output), suggesting that investments in employee development may provide some benefits despite the overall negative trends in other areas.



## Transportation and Storage (H)

| Variable                                | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|---|--------|-----------------|-----------------|---------------|-------|
| <b>Air Emission</b>                     | -0.05  | -0.01           | -0.01           | -0.01         | -0.08 |
| <b>Fair Wages</b>                       | 0.03   | -0.00           | -0.04           | -0.09         | -0.11 |
| <b>GHG</b>                              | -0.05  | -0.02           | -0.01           | -0.02         | -0.1  |
| <b>GVA</b>                              | 0.4    | 0.24            | 0.15            | 0.16          | 0.95  |
| <b>Human Rights</b>                     | 0.00   | -0.00           | -0.00           | -0.00         | -0.01 |
| <b>Invasive Species</b>                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Land Use</b>                         | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| <b>Occupational Health &amp; Safety</b> | -0.01  | -0.01           | -0.01           | -0.01         | -0.03 |
| <b>Ocean Plastic</b>                    | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Training</b>                         | 0.00   | 0.00            | 0.00            | 0.00          | 0.02  |
| <b>Waste</b>                            | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Water</b>                            | -0.00  | -0.00           | -0.01           | -0.04         | -0.05 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Transportation and storage (NACE Code H), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Transportation and Storage sector in the Kingdom of the Netherlands reveals significant negative impacts, particularly in the GHG category, which shows a high negative impact of -0.100447 EUR Impact per EUR Output, indicating serious environmental concerns related to greenhouse gas emissions from transportation activities. Additionally, the Air Emission category reflects a substantial negative impact of -0.081861 EUR Impact per EUR Output, further emphasizing the environmental challenges faced by the sector. In contrast, the Training category presents a positive impact (0.015585 EUR Impact per EUR Output), suggesting that investments in workforce development may yield beneficial outcomes despite the overall negative trends in other areas.



## Accommodation and Food Service Activities (I)

| Variable                                | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|---|--------|-----------------|-----------------|---------------|-------|
| <b>Air Emission</b>                     | -0.00  | -0.01           | -0.02           | -0.02         | -0.04 |
| <b>Fair Wages</b>                       | 0.02   | -0.09           | -0.28           | -0.25         | -0.59 |
| <b>GHG</b>                              | -0.00  | -0.01           | -0.01           | -0.02         | -0.05 |
| <b>GVA</b>                              | 0.49   | 0.19            | 0.12            | 0.15          | 0.95  |
| <b>Human Rights</b>                     | -0.01  | -0.00           | -0.01           | -0.01         | -0.02 |
| <b>Invasive Species</b>                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Land Use</b>                         | 0.00   | -0.00           | -0.01           | -0.02         | -0.03 |
| <b>Occupational Health &amp; Safety</b> | -0.02  | -0.02           | -0.04           | -0.03         | -0.11 |
| <b>Ocean Plastic</b>                    | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Training</b>                         | 0.00   | 0.00            | 0.00            | 0.00          | 0.01  |
| <b>Waste</b>                            | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| <b>Water</b>                            | 0.00   | -0.09           | -0.33           | -0.31         | -0.73 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Accommodation and food service activities (NACE Code I), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Accommodation and Food Service Activities sector in the Kingdom of the Netherlands highlights significant negative impacts, particularly in the Fair Wages category, which shows a substantial negative impact of -0.592017 EUR Impact per EUR Output, indicating serious labor-related issues within the sector. Additionally, the Water category reflects an extremely high negative impact of -0.728415 EUR Impact per EUR Output, underscoring critical concerns regarding water management and pollution associated with these activities. In contrast, the Training category presents a positive impact (0.013507 EUR Impact per EUR Output), suggesting that investments in employee development may provide some benefits despite the overall negative trends in other areas.





## Information and Communication (J)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Fair Wages                   | 0.04   | -0.02           | -0.02           | -0.07         | -0.07 |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.01         | -0.02 |
| GVA                          | 0.54   | 0.22            | 0.1             | 0.11          | 0.98  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| Occupational Health & Safety | -0.00  | -0.01           | -0.00           | -0.01         | -0.02 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.01            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | -0.00  | -0.00           | -0.01           | -0.02         | -0.03 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Information and communication (NACE Code J), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Information and Communication sector in the Kingdom of the Netherlands indicates notable negative impacts, particularly in the Fair Wages category, which shows a significant negative impact of -0.071812 EUR Impact per EUR Output, highlighting labor-related issues within the sector. Additionally, the Water category reflects a considerable negative impact of -0.029097 EUR Impact per EUR Output, suggesting concerns regarding water management and pollution associated with information and communication activities. In contrast, the Training category presents a positive impact (0.022578 EUR Impact per EUR Output), indicating that investments in employee development may yield beneficial outcomes despite the overall negative trends in other areas.



## Financial and Insurance Activities (K)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Fair Wages                   | 0.02   | 0.01            | -0.01           | -0.03         | -0.01 |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| GVA                          | 0.6    | 0.21            | 0.08            | 0.07          | 0.96  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Occupational Health & Safety | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.00            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | 0.00   | -0.00           | -0.00           | -0.02         | -0.02 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Financial and insurance activities (NACE Code K), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Financial and Insurance Activities sector in the Kingdom of the Netherlands shows relatively low negative impacts across various categories, with the most significant negative impact observed in the Water category at -0.021891 EUR Impact per EUR Output, indicating concerns regarding water management in financial operations. The Fair Wages category also reflects a slight negative impact of -0.012001 EUR Impact per EUR Output, suggesting some labor-related issues, although not as pronounced as in other sectors. In contrast, the Training category demonstrates a positive impact (0.020755 EUR Impact per EUR Output), indicating that investments in employee development may provide beneficial outcomes despite the overall negative trends in other areas.



## Real Estate Activities (L)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Fair Wages                   | 0.01   | 0.01            | -0.01           | -0.04         | -0.04 |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| GVA                          | 0.46   | 0.29            | 0.11            | 0.1           | 0.96  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| Occupational Health & Safety | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.01            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | 0.00   | -0.00           | -0.00           | -0.02         | -0.02 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Real estate activities (NACE Code L), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Real Estate Activities sector in the Kingdom of the Netherlands indicates several negative impacts, particularly in the Water category, which shows a significant negative impact of -0.020382 EUR Impact per EUR Output, highlighting concerns regarding water management and usage in real estate operations. Additionally, the Fair Wages category reflects a notable negative impact of -0.036550 EUR Impact per EUR Output, suggesting labor-related issues within the sector, although less severe than in some other sectors. In contrast, the Training category presents a positive impact (0.019126 EUR Impact per EUR Output), indicating that investments in employee development may yield beneficial outcomes despite the overall negative trends in other areas.



## Professional, Scientific and Technical Activities (M)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Fair Wages                   | 0.05   | -0.00           | -0.02           | -0.06         | -0.04 |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.01         | -0.02 |
| GVA                          | 0.5    | 0.25            | 0.11            | 0.12          | 0.98  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| Occupational Health & Safety | -0.01  | -0.01           | -0.00           | -0.01         | -0.03 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.01            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | 0.00   | -0.00           | -0.01           | -0.03         | -0.03 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Professional, scientific and technical activities (NACE Code M), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Professional, Scientific and Technical Activities sector in the Kingdom of the Netherlands reveals significant negative impacts, particularly in the Water category, which shows a high negative impact of -0.034930 EUR Impact per EUR Output, indicating serious concerns regarding water management and pollution in this sector. Additionally, the Fair Wages category reflects a notable negative impact of -0.039426 EUR Impact per EUR Output, suggesting labor-related issues that may affect employee satisfaction and retention. In contrast, the Training category presents a positive impact (0.019053 EUR Impact per EUR Output), indicating that investments in workforce development may provide beneficial outcomes despite the overall negative trends in other areas.



## Administrative and Support Service Activities (N)

| Variable                                | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|---|--------|-----------------|-----------------|---------------|-------|
| <b>Air Emission</b>                     | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| <b>Fair Wages</b>                       | 0.07   | -0.02           | -0.02           | -0.06         | -0.04 |
| <b>GHG</b>                              | -0.00  | -0.01           | -0.00           | -0.01         | -0.02 |
| <b>GVA</b>                              | 0.64   | 0.17            | 0.08            | 0.09          | 0.98  |
| <b>Human Rights</b>                     | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Invasive Species</b>                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Land Use</b>                         | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| <b>Occupational Health &amp; Safety</b> | -0.01  | -0.01           | -0.00           | -0.01         | -0.03 |
| <b>Ocean Plastic</b>                    | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Training</b>                         | 0.01   | 0.00            | 0.00            | 0.00          | 0.01  |
| <b>Waste</b>                            | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| <b>Water</b>                            | 0.00   | -0.01           | -0.02           | -0.04         | -0.07 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Administrative and support service activities (NACE Code N), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Administrative and Support Service Activities sector in the Kingdom of the Netherlands indicates significant negative impacts, particularly in the Water category, which shows a substantial negative impact of -0.068712 EUR Impact per EUR Output, highlighting serious concerns regarding water management and pollution in this sector. Additionally, the Fair Wages category reflects a notable negative impact of -0.039341 EUR Impact per EUR Output, suggesting labor-related issues that may affect employee satisfaction and retention. In contrast, the Training category presents a positive impact (0.014686 EUR Impact per EUR Output), indicating that investments in workforce development may yield beneficial outcomes despite the overall negative trends in other areas.



## Public Administration and Defense; Compulsory Social Security (O)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Fair Wages                   | 0.07   | -0.01           | -0.02           | -0.05         | -0.02 |
| GHG                          | -0.00  | -0.01           | -0.00           | -0.01         | -0.02 |
| GVA                          | 0.6    | 0.18            | 0.08            | 0.09          | 0.94  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Occupational Health & Safety | -0.03  | -0.01           | -0.00           | -0.01         | -0.05 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.00            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | -0.00  | -0.01           | -0.01           | -0.03         | -0.06 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Public administration and defense; compulsory social security (NACE Code O), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Public Administration and Defense; Compulsory Social Security sector in the Kingdom of the Netherlands reveals notable negative impacts, particularly in the Water category, which shows a significant negative impact of -0.056187 EUR Impact per EUR Output, indicating serious concerns regarding water management and pollution in this sector. Additionally, the Fair Wages category reflects a negative impact of -0.019309 EUR Impact per EUR Output, suggesting labor-related issues that could affect employee morale and satisfaction. In contrast, the Training category presents a positive impact (0.018844 EUR Impact per EUR Output), indicating that investments in workforce development may provide beneficial outcomes despite the overall negative trends in other areas.



## Education (P)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| Fair Wages                   | 0.12   | 0.00            | -0.01           | -0.03         | 0.08  |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.00         | -0.01 |
| GVA                          | 0.79   | 0.09            | 0.04            | 0.04          | 0.97  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Occupational Health & Safety | -0.03  | -0.00           | -0.00           | -0.00         | -0.04 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.00            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | -0.00  | -0.00           | -0.01           | -0.01         | -0.02 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Education (NACE Code P), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Education sector in the Kingdom of the Netherlands indicates a mix of positive and negative impacts, with the Fair Wages category showing a notable positive impact of 0.082678 EUR Impact per EUR Output, suggesting that the sector may provide relatively better labor conditions compared to others. However, the Water category reflects a significant negative impact of -0.020601 EUR Impact per EUR Output, highlighting concerns regarding water management and pollution associated with educational activities. Additionally, the Occupational Health & Safety category shows a considerable negative impact of -0.037113 EUR Impact per EUR Output, indicating potential risks to employee safety within the sector.



## Human Health and Social Work Activities (Q)

| Variable                     | direct | upstream tier 1 | upstream tier 2 | upstream rest | Total |
|------------------------------|--------|-----------------|-----------------|---------------|-------|
| Air Emission                 | -0.00  | -0.00           | -0.00           | -0.01         | -0.01 |
| Fair Wages                   | 0.11   | -0.02           | -0.05           | -0.07         | -0.03 |
| GHG                          | -0.00  | -0.00           | -0.00           | -0.01         | -0.02 |
| GVA                          | 0.7    | 0.13            | 0.06            | 0.07          | 0.95  |
| Human Rights                 | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Invasive Species             | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Land Use                     | 0.00   | -0.00           | -0.00           | -0.01         | -0.01 |
| Occupational Health & Safety | -0.04  | -0.01           | -0.01           | -0.01         | -0.07 |
| Ocean Plastic                | 0.00   | -0.00           | -0.00           | -0.00         | -0.00 |
| Training                     | 0.01   | 0.00            | 0.00            | 0.00          | 0.02  |
| Waste                        | -0.00  | -0.00           | -0.00           | -0.00         | -0.00 |
| Water                        | -0.00  | -0.02           | -0.05           | -0.06         | -0.12 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Human health and social work activities (NACE Code Q), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Human Health and Social Work Activities sector in the Kingdom of the Netherlands shows a significant positive impact in the Fair Wages category, with an impact of 0.111376 EUR Impact per EUR Output, indicating relatively favorable labor conditions compared to other sectors. However, the Water category reflects a substantial negative impact of -0.123722 EUR Impact per EUR Output, highlighting serious concerns regarding water management and pollution associated with health and social work activities. Additionally, the Occupational Health & Safety category shows a considerable negative impact of -0.065998 EUR Impact per EUR Output, suggesting potential risks to employee safety within the sector.





## Arts, Entertainment and Recreation and Other Services and Activities (R&S)

| Variable                     | direct | upstream<br>tier 1 | upstream<br>tier 2 | upstream<br>rest | Total |
|------------------------------|--------|--------------------|--------------------|------------------|-------|
| Air Emission                 | -0.00  | -0.00              | -0.01              | -0.01            | -0.02 |
| Fair Wages                   | 0.06   | -0.03              | -0.07              | -0.1             | -0.13 |
| GHG                          | -0.00  | -0.01              | -0.01              | -0.01            | -0.03 |
| GVA                          | 0.55   | 0.2                | 0.09               | 0.1              | 0.95  |
| Human Rights                 | -0.01  | -0.00              | -0.00              | -0.00            | -0.01 |
| Invasive Species             | -0.00  | -0.00              | -0.00              | -0.00            | -0.00 |
| Land Use                     | -0.02  | -0.00              | -0.01              | -0.01            | -0.03 |
| Occupational Health & Safety | -0.01  | -0.01              | -0.01              | -0.01            | -0.04 |
| Ocean Plastic                | 0.00   | -0.00              | -0.00              | -0.00            | -0.00 |
| Training                     | 0.01   | 0.00               | 0.00               | 0.00             | 0.02  |
| Waste                        | -0.00  | -0.00              | -0.00              | -0.00            | -0.00 |
| Water                        | -0.00  | -0.02              | -0.07              | -0.09            | -0.17 |

Source: WifOR / VBA, Table for Kingdom of the Netherlands - Arts, entertainment and recreation and other services and activities (NACE Code R&S), 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025.

The impact intensity table for the Arts, Entertainment and Recreation; Other Services sector in the Kingdom of the Netherlands reveals significant negative impacts, particularly in the Water category, which shows a substantial negative impact of -0.172786 EUR Impact per EUR Output, indicating serious concerns regarding water management and pollution associated with these activities. Additionally, the Fair Wages category reflects a notable negative impact of -0.132611 EUR Impact per EUR Output, suggesting labor-related issues that may affect employee satisfaction and retention within the sector. In contrast, the Training category presents a positive impact (0.018772 EUR Impact per EUR Output), indicating that investments in workforce development may yield beneficial outcomes despite the overall negative trends in other areas.

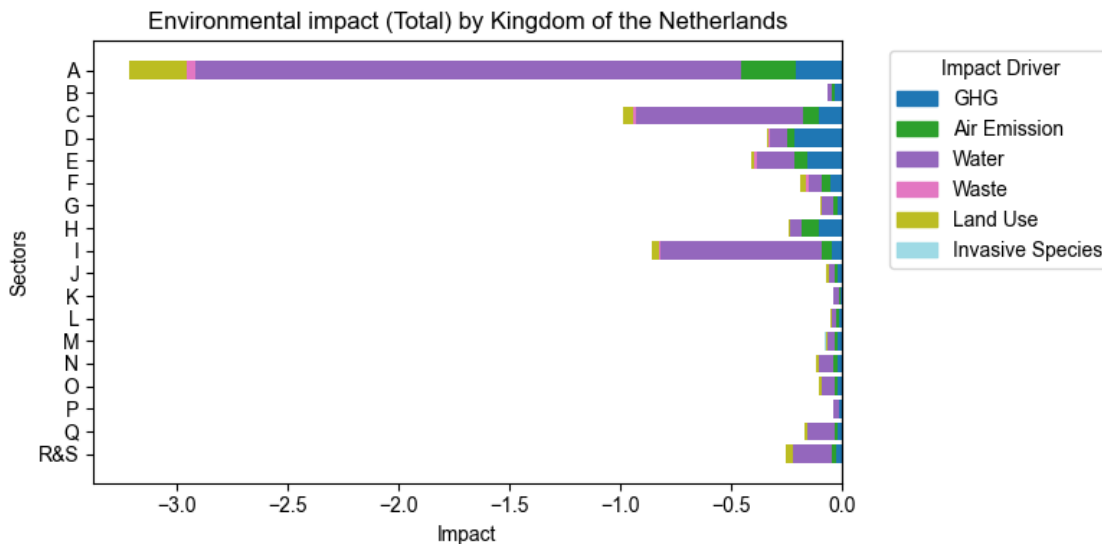


## Overview

The overall assessment of the Kingdom of the Netherlands, based on the Value Balancing Alliance and WifOR methodologies, reveals significant environmental and social impacts across various NACE sectors, highlighting the need for comprehensive sustainability strategies. Environmental impact intensities indicate that upstream activities contribute substantially to air emissions, water usage, and greenhouse gas emissions, suggesting that addressing supply chain practices is crucial for reducing the overall ecological footprint. Social impact assessments show that while direct operations may present relatively favorable conditions in areas like Fair Wages, upstream impacts reveal considerable challenges, particularly in labor rights and occupational health and safety. The data underscores the importance of integrating sustainability into both direct operations and upstream processes to enhance overall societal well-being and environmental stewardship. This holistic approach is essential for the Netherlands to meet its sustainability goals and improve its impact across all sectors.

## Environmental Impact NLD

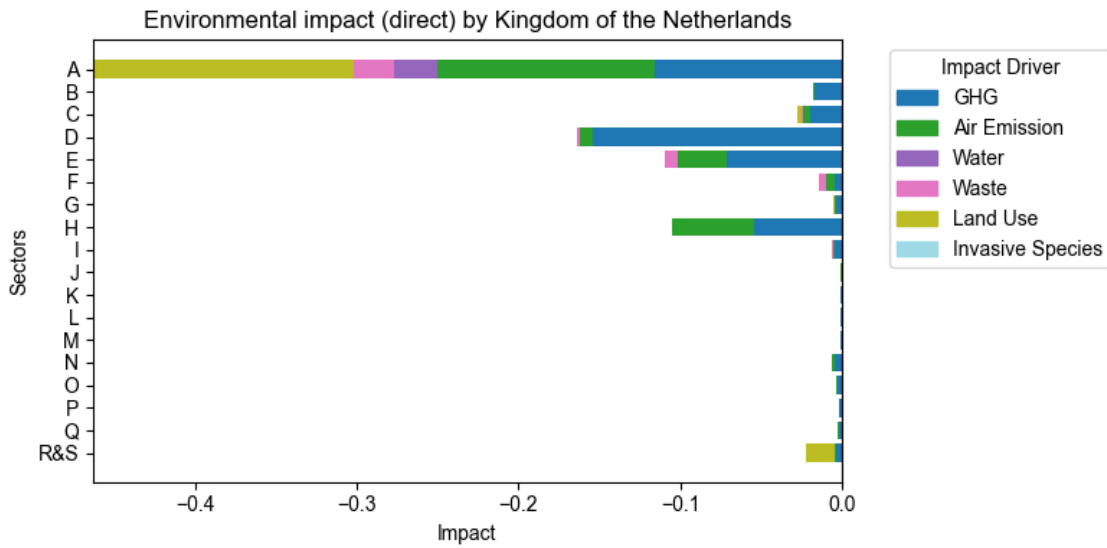
### Total



Source: VBA/WifOR, Overview of environmental impact, Total in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

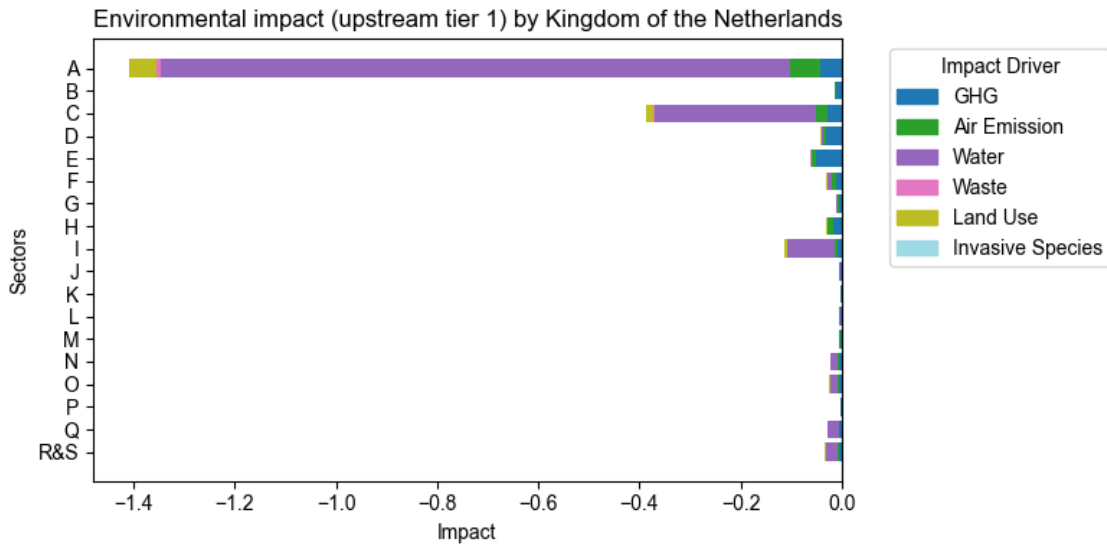


direct



Source: VBA/WifOR, Overview of environmental impact, direct in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

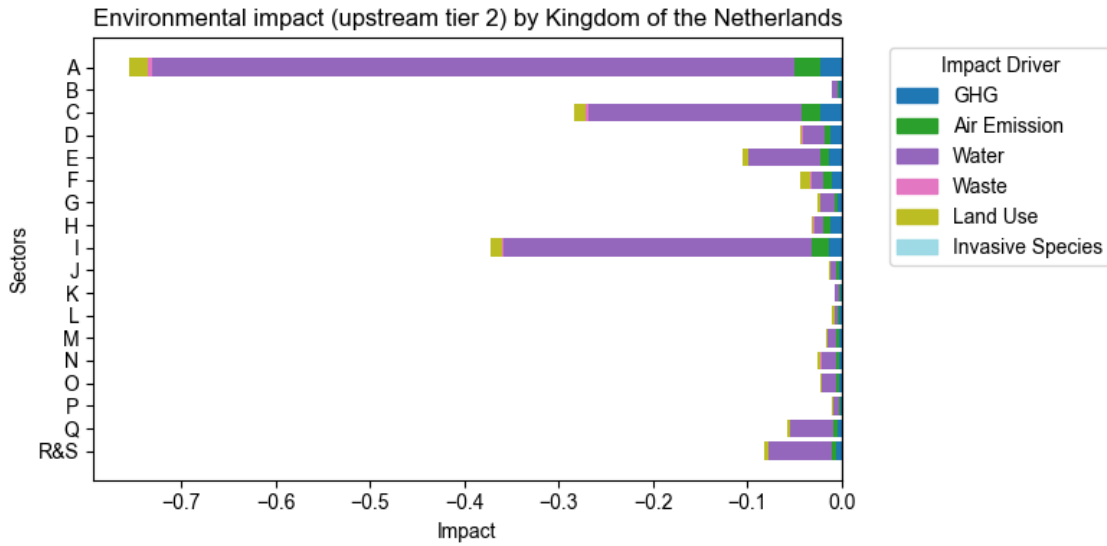
upstream tier 1



Source: VBA/WifOR, Overview of environmental impact, upstream tier 1 in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

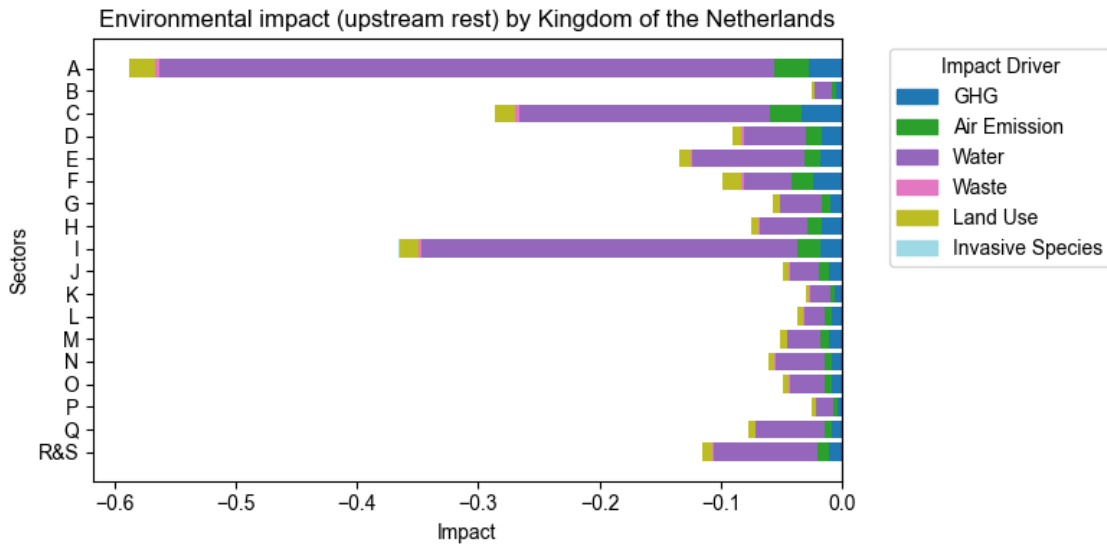


upstream tier 2



Source: VBA/WifOR, Overview of environmental impact, upstream tier 2 in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

upstream rest



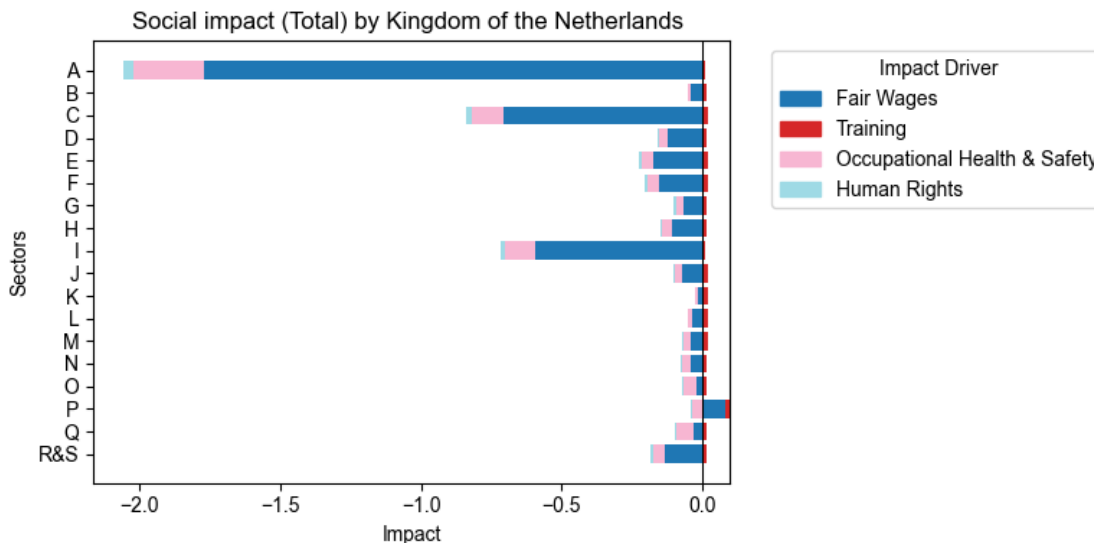
Source: VBA/WifOR, Overview of environmental impact, upstream rest in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025



The environmental impact intensities across various NACE sectors in the Kingdom of the Netherlands show significant differences, particularly when comparing direct impacts to those from upstream stages in the value chain. Direct impacts tend to be lower across most sectors, while upstream tier 1 and tier 2 impacts reveal much higher negative values, indicating that much of the environmental burden is generated by suppliers and earlier stages of production. For instance, sectors such as Agriculture, Forestry, and Fishing exhibit substantial upstream impacts in air emissions and water usage, highlighting the importance of addressing environmental issues throughout the supply chain. Additionally, the "upstream rest" category shows considerable negative impacts, suggesting that indirect suppliers also contribute significantly to the overall environmental footprint. This analysis underscores the need for a comprehensive approach to environmental management that considers both direct operations and the broader supply chain.

## Social Impact NLD

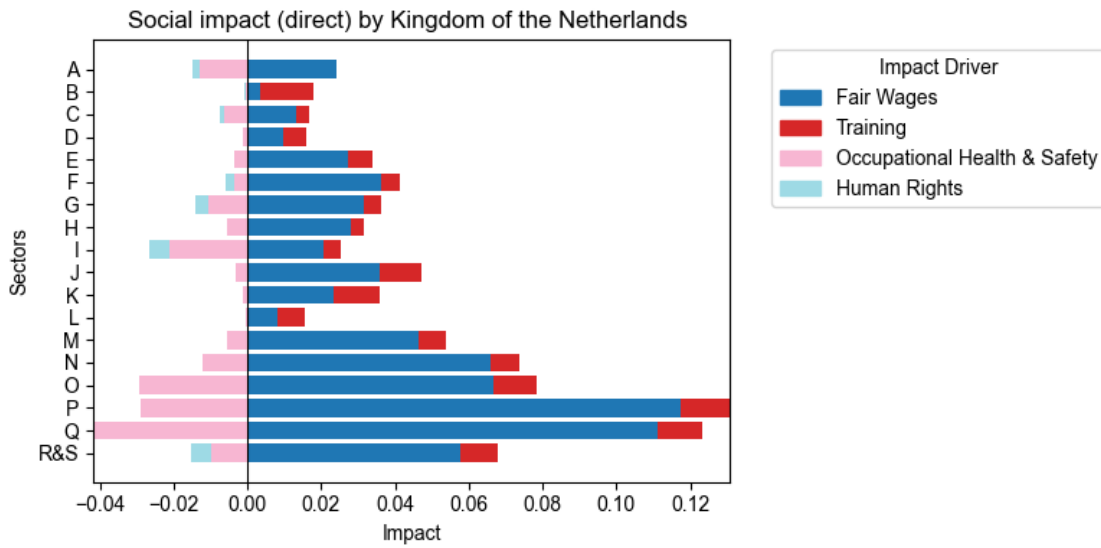
### Total



Source: VBA/WifOR, Overview of social impact, Total in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

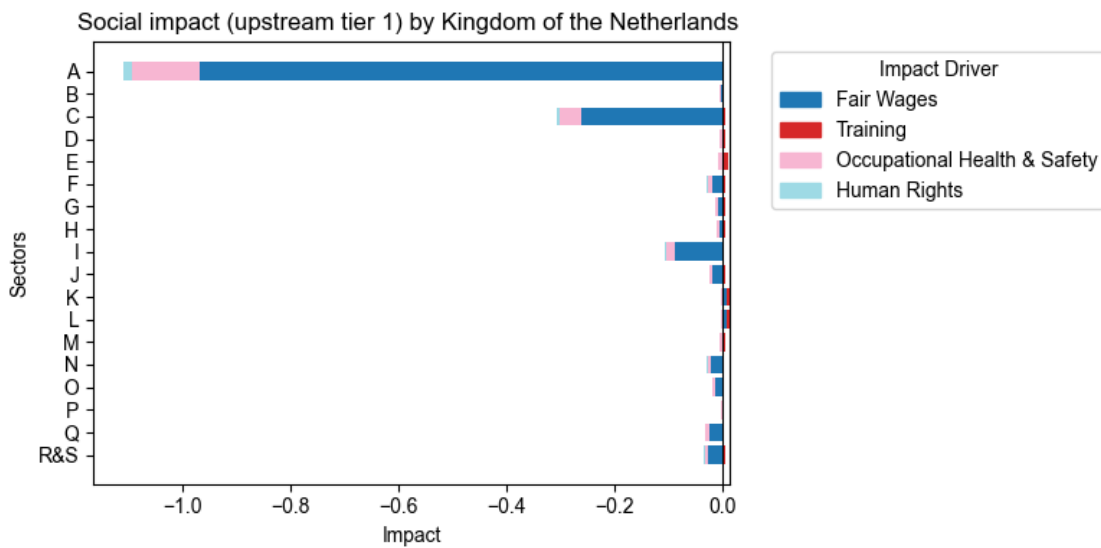


direct



Source: VBA/WifOR, Overview of social impact, direct in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

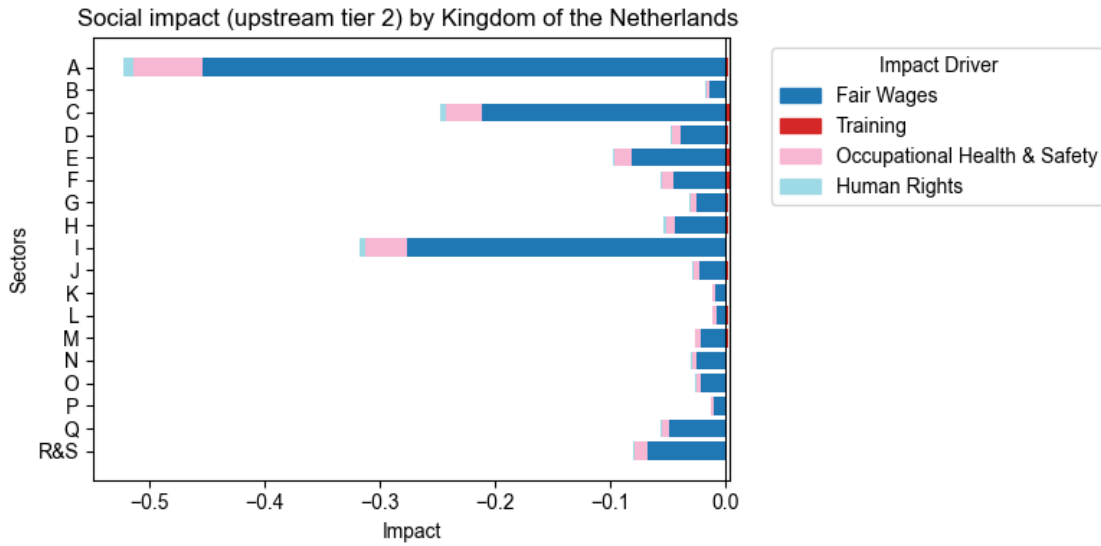
upstream tier 1



Source: VBA/WifOR, Overview of social impact, upstream tier 1 in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

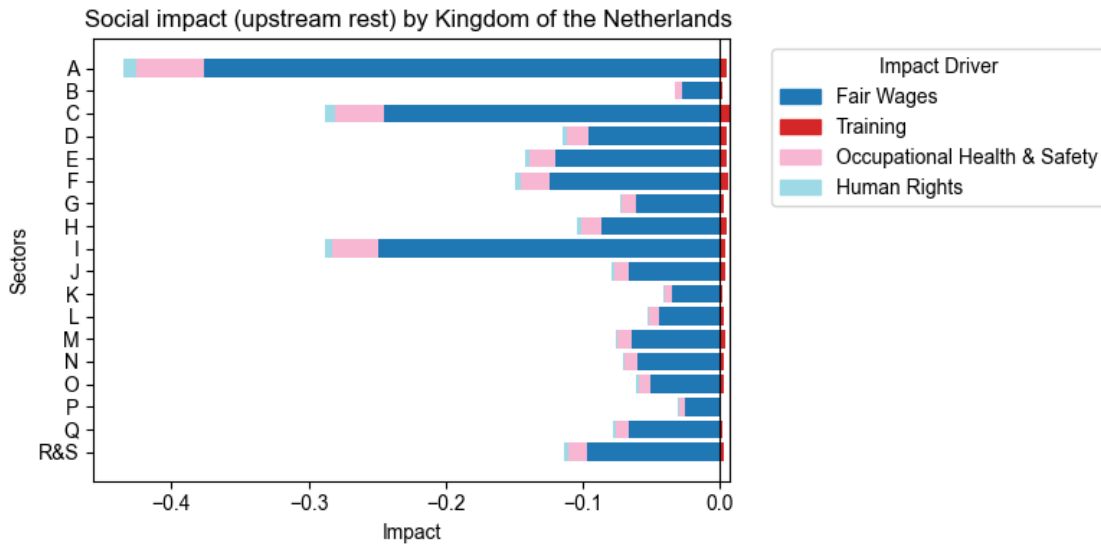


upstream tier 2



Source: VBA/WifOR, Overview of social impact, upstream tier 2 in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025

upstream rest



Source: VBA/WifOR, Overview of social impact, upstream rest in Kingdom of the Netherlands, 2024, Calculated based on WifOR Institute, WifOR Value Factors, Version February 2025



The impact intensities in social impacts across various NACE sectors in the Kingdom of the Netherlands reveal significant differences when comparing direct impacts to those from upstream stages in the value chain, as assessed by the VBA and WifOR methodologies. Direct impacts are generally lower, particularly in categories like Fair Wages and Occupational Health & Safety, indicating that the immediate operations of sectors may not fully reflect their broader social responsibilities. In contrast, upstream tier 1 and tier 2 impacts often show more pronounced negative values, suggesting that suppliers and earlier stages of production contribute significantly to social issues, such as labor conditions and training opportunities. The "upstream rest" category further emphasizes this trend, highlighting the importance of addressing social impacts throughout the entire supply chain. This analysis underscores the necessity for a holistic approach to social responsibility that encompasses both direct operations and the upstream value chain, ensuring that all stakeholders are considered in impact assessments.





## Application

Beyond comparing company and sector impacts, the data presented here can support various additional applications. This chapter highlights several such use cases.

Impact benchmarks can help state institutions assess risks, guide investments and funding strategies, inform procurement decisions, enforce compliance, and shape policies that promote human rights protection, environmental sustainability, and economic growth. By applying country-specific and industry-specific impact benchmarks, governments and regulatory bodies can reduce liabilities, such as pollution and labor exploitation, while ensuring fair competition.

| Collection of ideas          |   |   |  |  |
|------------------------------|---|---|--|--|
|                              | Regulation & Compliance   | Policy & Economic Planning  | Investment & Development Finance   | Risk Assessment  |
| <b>Institution</b>           | Ministries  | Development Institutions  | Development Banks  | Insurance Entities   |
| <b>Vision of application</b> | Benchmarks could support industry-specific sustainability target setting and provide valuable insights for cost-benefit analyses of regulations | Development institutions could use benchmarks to shape industry-specific sustainability goals like labour protection guidelines | Benchmarks could help guide funding decisions for large projects, ensuring proper risk mitigation, particularly in sectors such as agriculture               | Insurers could assess risks using industry benchmarks, helping determine eligibility and pricing for political risk insurance                |
|                              | Public Procurement & Infrastructure   | International Trade & Market Access   | Accountability & Consumer Protection   | Supply Chain Management  |
| <b>Institution</b>           | Public-Private Partnerships   | Trade Ministries  | Consumer Protection Agencies   | Export Credit Agencies   |
| <b>Vision of application</b> | Governments could use country-specific impact benchmarks to compare and select private sector partners (e.g., Infrastructure projects)          | Trade ministries could apply sustainability benchmarks to imported goods (e.g., carbon intensity benchmarks for minerals)       | Transparency rules could be enforced, requiring companies to disclose their impacts relative to benchmarks to prevent false claims and ensure accountability | Export credit agencies could use environmental and social benchmarks in financing decisions to promote ethical and sustainable supply chains |

Figure VBA, Policy Applications, 2025

Impact Intensities represent the average environmental, social, and economic impact per sector output across countries, regions, and globally. They serve as a reference point for assessing an organization’s sustainability performance in its own operations and supply chains across industries and geographies. By comparing their performance to sector averages, companies and other organizations can determine whether they meet or exceed benchmarks and set specific targets for improvement.<sup>10</sup>

<sup>10</sup> VBA et al., Valuing Impact Materiality 2025, 2025, [www.value-balancing.com](http://www.value-balancing.com).



Beyond internal assessments, Impact Intensities encourage collaboration with suppliers and partners, fostering sustainability improvements across shared supply chains. By identifying high-impact tiers or regions, companies can make informed decisions about production and sourcing. On a global scale, comparing benchmarks across countries highlights regions with critical sustainability challenges, enabling firms to focus efforts where they are most needed. These benchmarks also help organizations anticipate risks beyond production, such as regulatory pressures or resource availability constraints. By revealing industries and countries where unsustainable environmental or social challenges could lead to future restrictions, they support strategic decisions on production, sourcing, resource allocation, and diversification. Additionally, they help companies effectively communicate sustainability achievements across diverse markets.

The benchmarks serve as a key reference for materiality assessments, helping companies prioritize impacts, allocate resources efficiently, and align with stakeholder and sustainability goals. They provide reliable data for transparent reporting, enabling companies to demonstrate their performance to investors, customers, and other stakeholders. This fosters trust, ensures compliance with standards, and enhances corporate reputation.

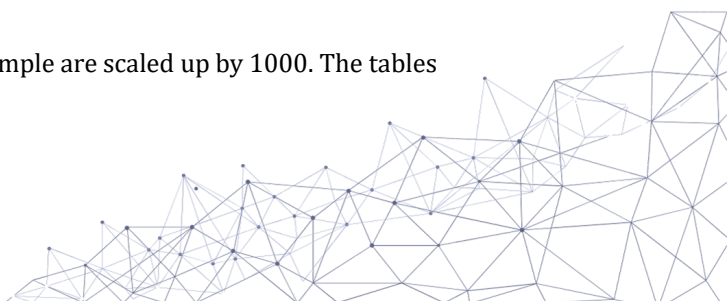
As sustainability becomes increasingly important and disclosure regulations evolve, assessment and reporting methodologies must keep pace. Impact Intensity benchmarks offer valuable guidance for improving practices, refining sustainability reporting, sharpening decision-making, and optimizing resource allocation. It is important to note that Impact Intensities are monetized using WifOR value factors, and meaningful comparisons require companies to calculate their impacts using the same methodology.

To illustrate how these benchmarks can be applied in practice, consider the following example: In Australia's Consumer Goods sector, an increase of EUR 1000<sup>11</sup> in production results in an average negative impact of EUR 6.98 from greenhouse gas (GHG) emissions within a company's own operations. Direct suppliers contribute another EUR 16.04, while suppliers' suppliers account for EUR 10.20 globally, and the remaining global supply chain adds EUR 15.77. Altogether, the total damage due to GHG emissions across the entire value chain amounts to approximately EUR 49 per EUR 1000 of output. This indicates that the majority of GHG emissions are driven by the upstream supply chain rather than the direct operations of Consumer Goods companies.

A company operating in this sector in Australia can compare these Impact Intensity benchmarks with its own data to evaluate its performance. To calculate its own GHG Impact Intensities, the company must take its environmental data per country and value chain stage, divide it by its output or turnover (own operations in the respective country), and multiply the result with the WifOR value factor:

---

<sup>11</sup> For ease of interpretation, the numbers in this example are scaled up by 1000. The tables show impact per EUR 1 of output.



$$GHG\ Intensity_{c,v} = \frac{GHG\ emissions_{c,v}}{Output_c} * WifOR\ value\ factor\ for\ GHG\ emissions^{12}$$

If the company's calculated GHG Intensity values are lower than the benchmark, this indicates a smaller GHG footprint relative to the sector average. Conversely, higher values suggest a larger-than-average impact.

For a materiality assessment, Impact Intensities at or above the sectoral benchmark can be considered material, signaling areas that may require targeted sustainability measures.

## Caveats

### Data Accuracy

The input-output model used to calculate the Impact Intensities integrates satellite accounts for various indicators, constructed using multiple data sources. These accounts aim to accurately portray industry effects across all countries based on the best available knowledge and data.<sup>13</sup> However, varying data availability across indicators, countries, and sectors necessitates certain extrapolations and assumptions. WifOR is committed to continuously updating its data to improve accuracy and minimize errors or gaps. As such, the results here represent a snapshot, capturing current impacts as comprehensively as possible. Despite inherent limitations, this dataset remains, to the best of our knowledge, the most detailed, granular, and comprehensive source available for assessing industrial impacts.

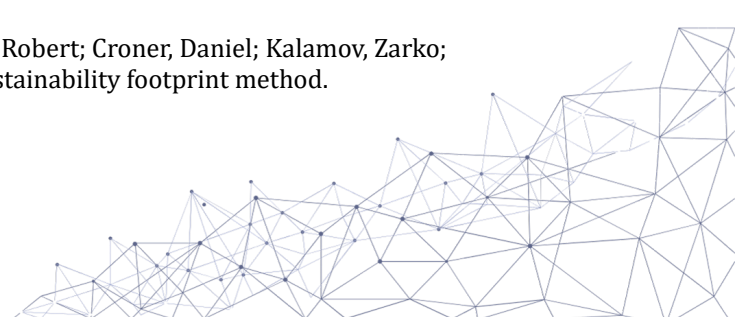
### Impact Valuation

Impact Valuation advances traditional reporting beyond disclosure of companies' social and environmental effects in disparate units (e.g., GHG emissions in metric tons or occupational accidents in numbers of events). It captures the environmental and social changes caused by these outputs, tracks their broader impact on society, and conveys these effects in monetary terms—a unified metric that enables comparison across a diverse range of indicators.

Various approaches exist to quantify the societal value of indicators. In the present assessment, the indicators were monetized using the WifOR Impact Valuation methodology, with publicly available value factors. WifOR primarily focuses on damage costs to measure impacts. However, this is not feasible for all indicators, as some impact pathways and their consequences remain insufficiently understood. Each indicator therefore follows a specific valuation approach. For example, GHG emissions contribute to climate change regardless of their source and are thus valued using a 'social cost of carbon' approach and a global value factor. By contrast, water consumption is assessed based on economic damage and human

<sup>12</sup> c = country of operation; v = value chain level

<sup>13</sup> Scholz, Richard; Dorndorf, Tabea; Tesch, Jasmin; Köster, Robert; Croner, Daniel; Kalamov, Zarko; Setzer, Jana. 2024. Impact measurement using WifOR's sustainability footprint method. Methodological report. 2024 WifOR Institute.



health impacts, yielding country-specific value factors that reflect local water scarcity. This means water consumption in highly water-stressed regions will generate a disproportionately higher impact, in some cases exceeding that of GHG emissions at global level. Given such methodological idiosyncrasies, comparisons between indicators should be interpreted cautiously, as differing valuation approaches limit direct comparability, especially on a worldwide level.

## Double Counting

Impact Valuation carries the risk of *double counting*, as different impact drivers may share the same, or overlapping, impact pathways. This challenge is particularly relevant when analyzing multiple indicators together. For instance, waste incineration releases air pollutants that contribute to respiratory disease and health-related costs—accounted for in the value factor for *Waste*, but also included in the factor for *Air Emission*. Simply subtracting this impact from the waste coefficient would underestimate the true impact of waste, while summing both indicators would lead to double counting.

## Economic Impact

Gross Value Added (GVA) is a key metric for assessing a company's economic contribution across value chains. It represents the economic value generated through company operations after deducting the cost of inputs and services used in production. Often, the total GVA across the entire value chain approximately matches the direct output of a company—if a company generates EUR 1,000 in direct output, the total GVA across its supply chain and internal operations typically also equals EUR 1,000. This equivalence is down to the fact that GVA encompasses all value-creation activities, from raw materials production to final goods and services, and is therefore distributed across all stages of the value chain. The distribution varies by industry and location: manufacturing or heavy engineering often rely on extensive supplier networks, resulting in significant upstream GVA contributions, while software development or advanced technology focus on highly integrated operations and tend to generate a substantial proportion of GVA internally.

## Netting Impacts

Impact Valuation seeks to enhance transparency, an aim that cannot be achieved if results are overly aggregated. Expressing diverse impacts using a common monetary metric does reduce complexity, but it also risks obscuring critical nuances. And while simplification can be useful, it should not carry the implication that negative impacts can be offset by positive ones.

There are certain cases where netting impacts can be appropriate (e.g., aggregating an indicator across different locations). But practices such as netting across different indicators can lead to *greenwashing* and a misrepresentation of results. This risk is particularly relevant for economic impact (represented by GVA), which has therefore been intentionally excluded from the charts below.



In the current phase of Impact Valuation development, limitations remain, including overlapping indicators (double counting), divergent valuation approaches, and data gaps that hinder a fully comprehensive assessment. Moreover, different impacts affect different groups unevenly, meaning that a positive impact on one group does not necessarily compensate for a negative impact on another (for instance, extra vocational training for managers cannot offset agricultural losses caused by water scarcity).





Visit us at <http://www.value-balancing.com>  
Contact us at [info@value-balancing.com](mailto:info@value-balancing.com)

Value Balancing Alliance e.V.  
Bockenheimer Landstraße 22  
60323 Frankfurt am Main, Germany  
Phone: +49 (0)69 153 29 36 - 10