

# Materiality: External Impact Measurement & Valuation

Issue: 2023

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# Measurement & Valuation: Impact 1 - GHG Emissions

**External impact category:** Climate Transition & Physical Risks

**Cause of the impact:** Operations, Products/Services, and Supply chain with >50% of business activity\*

**External stakeholder(s)/ Impact area(s) evaluated:** Society

**Topic relevance on external stakeholders:** Thai Union recognizes the critical importance of understanding and mitigating GHG emissions' impact to foster environmental sustainability. With the target to reduce 4% of GHG emission intensity (scope 1 & 2) annually against a baseline of 2019\*\*, with a commitment to achieve net zero by 2050.\*\*\* The reduction of GHG emissions contributes to the mitigation of climate change impacts, this include reducing the social cost of carbon. **By reducing GHG emissions, the social cost of carbon**, which quantifies the economic damages caused by each ton of emitted carbon dioxide, **can be minimized** and lead to **benefiting society** as a whole.

**External Impacts:**

Output Metric	Impact Valuation	Impact Area Evaluated	Type of Impact	Impact Metric	Impact Valuation (Million THB)	Reference
Cover factory operations, offices, farms and hatcheries						
<b>Emissions (including greenhouse gases):</b>  <b>GHG Emissions Reduction</b>	<b>Social cost avoided:</b> Climate change impacts on society	Society	Positive (+)	<b>77,458.51 tCO2e of GHG Emission reduced resulting in social cost of carbon avoided.</b>  Social cost of Carbon: <b>1802 THB/tCO2e</b>	139.6	<ul style="list-style-type: none"> <li><b>2022 Sustainability Report</b> – Total GHG intensity: <a href="https://www.thaiunion.com/files/download/sustainability/sd-report-2022-en.pdf">https://www.thaiunion.com/files/download/sustainability/sd-report-2022-en.pdf</a></li> <li><b>Annual Progress Update</b> – KPI2: Carbon Intensity of Finished Goods**** <a href="https://investor.thaiunion.com/sustainable.html">https://investor.thaiunion.com/sustainable.html</a></li> <li><b>Technical Support Document:</b> Social cost of carbon 2021 (discount rate avg. 3%, 2022) = 53\$/Mton CO2: <a href="https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf">https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf</a></li> </ul>

\*2022 Sustainability Report, PDF pg.62 – data covers factories, offices, farms, and hatcheries in Thailand, Indonesia, Vietnam, France, Portugal, Poland, Germany, Norway, Ghana, Seychelles, Lithuania, and United States of America. PDF pg.63 – Reporting Coverage on Environmental Indicators = 98%

\*\*TCFD 2023 – Thai Union aiming to reduce scope 1 and 2 manufacturing operations' emission intensity by 4% against a baseline of 2019. [Thai Union TCFD Narrative](#)

\*\*\*2030 Seachange: Path to Net Zero Emissions – committed to achieve net zero by 2050. [2030 SeaChange Commitment](#)

\*\*\*\*Thailand Greenhouse Gas Management Organization (TGO) emissions factor change in Mar. 2021 leading an average of 5% higher GHG emission

# Measurement & Valuation: Impact 2 - Water Consumption and Discharge

External impact category: Water

Cause of the impact: Operations and Supply Chain with >50% of business activity\*

External stakeholder(s)/ Impact area(s) evaluated: Society

**Topic relevance on external stakeholders:** As Thai Union has become more aware of water scarcity and how conserving water is essential for our sustainable future to protecting valuable resources. We aim to conduct feasibility assessment and establish a closed-loop factories with zero water discharge, by 2030, to reduce water consumption.\*\* This will have a direct impact on **water availability for communities** by allowing greater supply of water to be available, especially in areas where water resources may be limited or strained.

External Impacts:

Output Metric	Impact Valuation	Impact Area Evaluated	Type of Impact	Impact Metric	Impact Valuation (Million THB)	Reference
Cover factory operations, offices, farms and hatcheries						
Water & Effluents:  Water Consumption Reduction	Access to product/service with positive impact provided: Water availability to community	Society	Positive (+)	341,455.65 m <sup>3</sup> of water consumption reduced resulting in more water availability to the community (comparing to 2019 baseline)  Water Price of Thailand: 119 THB/m <sup>3</sup>	40.6	<ul style="list-style-type: none"> <li>2022 Sustainability Report – Total Water Consumption***: <a href="https://www.thaiunion.com/files/download/sustainability/sd-report-2022-en.pdf">https://www.thaiunion.com/files/download/sustainability/sd-report-2022-en.pdf</a></li> <li>NCD/GIZ/VfU Water Risk Tool – Shadow price of water to capture the effect of water stress and population density on the value of water for competing uses (agriculture, domestic use) Shadow price for 2020 = \$3.50/m<sup>3</sup>: <a href="https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Femsdialogues.org%2Fwp-content%2Fuploads%2F2020%2F05%2FNCD-VfU-GIZ_Corporate_Bonds_Water_Credit_Risk_Tool_Version1%2520(2).xslm&amp;wdOrigin=BROWSELINK">https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Femsdialogues.org%2Fwp-content%2Fuploads%2F2020%2F05%2FNCD-VfU-GIZ_Corporate_Bonds_Water_Credit_Risk_Tool_Version1%2520(2).xslm&amp;wdOrigin=BROWSELINK</a></li> </ul>

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\*\*2030 SeaChange: Best in Class Manufacturing – Zero water discharge by 2030. [2030 SeaChange Commitment](#)

\*\*\*Discharged water does not meet the criteria to be at similar or higher quality as raw water extracted. Therefore, total water consumption will be equal to total water withdrawal.