

4 Strengthening Product Safety and Regulatory Compliance Governance

Operating internationally through integrated supply chains with a broad spectrum of products poses its own unique challenges. We place importance on product safety and regulatory compliance governance to ensure alignment with PETRONAS' overall objectives and aspirations. We have leveraged PETRONAS Group product stewardship situational assessments in order to:

- Identify areas of risk and enhance internal product stewardship standards with leading practices to ensure our products continue to be safe for intended use through evidence-based approaches.
- Identify areas for simplification and/or optimisation in managing our product regulatory compliance processes, as evident in the roll-out of a dedicated emergency response number to ensure any product-related emergency calls are professionally managed, with adequate coverage internationally.

5 Raw Material Compliance


As part of our efforts to drive product safety and sustainability, product raw material assessments have been identified as a key lever. With the introduction of our Raw Material Information Request (RAWMIR) process, key product stewardship information regarding presence of Substance of Very High Concern (SVHC) and conflict minerals¹ have been curated for the majority of our products and specific cases for phase out or substitution have been initiated.

Due diligence on 250 raw materials used in PCG's products revealed that no conflict minerals were supplied to PETRONAS. Efforts are ongoing to complete conflict minerals due diligence across the wider Downstream and Upstream businesses.

The RAWMIR process was also extended to Oil Field Chemicals (OFCs) in order to obtain key environmental performance related to the Offshore Chemical Notification Scheme (OCNS). Data pertaining to aquatic toxicity of OFCs was obtained to enhance our efforts to reduce risk from produced water discharges.

6 Life Cycle Assessment (LCA)

We continued to drive and embed Life Cycle Thinking across our businesses and operations, as well as for new projects and product development. The LCA approach was also used to quantify and prioritise the usage of low environmental impact raw material formulations, including formulating products with lower carbon footprint. This allowed us to capitalise on new business opportunities and generate income for PETRONAS.



36 LCA studies completed for products across Downstream and Gas businesses.

We conducted a cradle-to-gate assessment, beginning from resource extraction (cradle) to the factory gate (before it is transported to the consumer). This approach is aligned with our integrated value chain, ranging from extraction to downstream product completion.

Engagements with relevant stakeholders were conducted to encourage knowledge sharing on the concept of LCA and gain the necessary information to develop life cycle inventory data. In the absence of suppliers' information, we leverage our experience in developing the PETRONAS LCA database.

¹ In politically unstable areas, conflict mineral trade can be used to finance armed groups, fuel forced labour and other human rights abuses, and support corruption and money laundering. Conflict minerals are tin, tungsten, tantalum and gold (refer to EU Regulation 2017/821).