

# Our material ESG topics

During 2022, we performed an annual materiality<sup>1</sup> refresh to assess whether our sustainability focus areas, ESG material topics, prioritized SDGs and metrics remain relevant and appropriate.

The materiality assessment is an in-depth analysis of the risks and opportunities that we face in our stakeholders' topics of interest and serves as an essential process for selecting key sustainability topics for Aramco.

The exercise consisted of:

- External stakeholder engagement (details on pages 10 and 11);
- Internal stakeholder engagement (details on page 10);
- Review of existing (e.g., Ipieca sustainability guidelines) and upcoming standards (particularly the ISSB); and
- Peer benchmarking.

From our benchmarking, internal analysis, and stakeholder engagement, we identified and evaluated over 150 ESG topics. The outcomes of these assessments were tested with external and internal stakeholders to evaluate the relative significance of multiple topics impacts on our business. Prioritizing topics enables us to focus on where we can make meaningful differences.



Upon completion of our materiality refresh exercise and extensive stakeholder engagement, a summary of conclusions and subsequent actions, where appropriate, are provided below:

- Our four focus areas and 13 material topics (plus our focus on corporate governance<sup>2</sup>) remain relevant and appropriate;
- Greater quantitative and qualitative information is required on some material topics, e.g., biodiversity and human rights, which had no metrics in the prior year. Therefore, for this report, we have introduced metrics and more information on our approach toward biodiversity and human rights;
- Reconfirmed that Aramco's roadmap to establish additional metrics to better monitor and report on our performance under each focus area and material topic is correct. Due to the increasing maturity of existing KPIs and new metrics, we have increased the number of KPIs and metrics in this report to 61 (an increase of 25 metrics from the 36 metrics in the 2021 Sustainability Report);
- Ensure our metrics present a more complete picture of our total footprint. Therefore, various metrics (e.g., water consumed and waste generated) have expanded in scope from Company in-Kingdom to the operational control boundary level;
- Increase our prioritized SDGs from 10 to 12 by including SDG 4 (Quality Education) and SDG 17 (Partnerships for the Goals) — more details on how we've contributed to these are provided over the next few pages; and
- Increasing the number of our metrics in our Sustainability Report undergoing external assurance; from 6 metrics in 2021 to 16 metrics in 2022.

1. The concept of "materiality" refers to the guidance on external reporting from the Global Reporting Initiative, and does not necessarily correspond to the concept of materiality used in connection with Aramco's financial reports.

2. For more information on our governance, relevant material topics and our governance metrics, please refer to page 83 in this report and also page 90 in the [2022 Aramco Annual Report](#).

# Mapping our material ESG topics

Focus area	Relevant metric to monitor performance against each material topic
<p><b>Climate change and the energy transition</b></p>  <p>For more details, <a href="#">see page 19</a></p>	<p><b>Climate change (including GHG emissions)</b></p> <ul style="list-style-type: none"> <li>• Scope 1 emissions (million metric tonnes of CO<sub>2</sub>e)</li> <li>• Scope 2 emissions (million metric tonnes of CO<sub>2</sub>e)</li> <li>• Upstream carbon intensity (kg CO<sub>2</sub>e/boe)</li> <li>• Upstream methane emissions (metric tonnes of CH<sub>4</sub>)</li> <li>• Upstream methane intensity (%)</li> <li>• Flaring intensity (scf/boe)</li> <li>• Flared gas (MMscf)</li> <li>• Energy intensity (thousand Btu/boe)</li> </ul>
Material topics	Impact
<p>Climate change (including GHG emissions)</p>	
	<p><b>Example of our contributions to UN SDGs</b></p> <p><b>7 AFFORDABLE AND CLEAN ENERGY</b> Investing in more than 12 GW in solar and wind energy by 2030, expanding CO<sub>2</sub> storage capacity (e.g., CCS and CCUS) to support clean and affordable energy production, as well as investing in innovative flaring reduction technologies contribute to improved access to affordable, reliable and sustainable energy for all.</p> <p><b>8 DECENT WORK AND ECONOMIC GROWTH</b> Given the material impact climate change can have on human life and economic opportunities, Aramco continuously invests in lower carbon energy and alternative energy sources. This will create jobs and contribute to economic growth.</p> <p><b>13 CLIMATE ACTION</b> Being one of the world's lowest upstream carbon intensity major producers in line with the Kingdom of Saudi Arabia's Vision 2030 toward cleaner energy, having an ambition to reach net zero emissions by 2050 from wholly-owned operated assets, and also leveraging our influence in non-operated assets, within the timeframe set by the Paris Agreement.</p> <p><b>15 LIFE ON LAND</b> As part of our commitment to this SDG in 2022, we planted 11 million mangroves and have set a target to plant another 31 million mangroves by 2025 along the Arabian Gulf and Red Sea shorelines.</p> <p><b>17 PARTNERSHIPS FOR THE GOALS</b> Partnering with organizations with a climate focus, such as the OGCI, Ipieca and WEF, via collaboration with governments, the private sector across the different industries and civil society.</p>

**Impact on our business**



**Impact on our stakeholders**

Focus area

# Safe operations and people development



For more details, [see page 43](#)

Material topics      Impact

Workforce protection 

Process safety and asset integrity 

Human rights 

Labor practices 

Impact on our business



Impact on our stakeholders

Relevant metric to monitor performance against each material topic

**Workforce protection**

- Number of fatalities
- Lost time injuries/illnesses rate (number of LTI cases x 200,000/total work hours)
- Total recordable case frequency (total recordable incidents x 200,000/total work hours)
- Health performance\* (number of overdue major health findings) x (100)/total number of open major health findings)

**Process safety and asset integrity**

- Number of Tier 1 process safety events

**Human rights**

- Number of grievances raised\*
- Sites with a grievance mechanism in place\* (%)

**Labor practices**

- Attrition rate\* (%)
- Number of company employees
- Number of female employees\*
- Female (%) of total employees
- Female (%) of total number of new hires\*
- Number of female employees in leadership positions\*
- Female employees (%) in leadership positions
- Number of contractor employees\*
- Employee engagement score\* (%)
- Employees receiving regular performance reviews (%)
- Number of hired graduates
- Number of apprentices
- Number of interns
- Total hours of training and development\*
- Average hours of training and development\* (per employee)

Examples of our contributions to UN SDGs



Aramco has various health and safety and well-being programs for our employees (mental health initiatives, workplace standards and technology to minimize exposing our workers to unnecessary risk).



Aramco believes in lifelong learning and development and continues to provide world-class learning experiences that drive personal growth and effective operations at all levels of the Company through innovative platforms such as corporate e-Learning, the Hosted University Programs, Advance Development Programs and others.



Aramco is improving the gender balance of its workforce via a range of female empowerment initiatives. In Saudi Arabia, Aramco funds the STEMania program for school-age girls, offering university scholarships for science, technology, engineering and mathematical degrees.



We have strong policies and processes to manage our ethics, bribery and corruption risks, and ensure a decent working environment for our workforce.

\* Metric reported for the first time externally.

# Mapping our material ESG topics

Focus area

## Minimizing environmental impact



For more details, [see page 57](#)

Material topics

Impact

Local environmental impact



Biodiversity and ecosystems



Water management



Product stewardship and waste management



Relevant metric to monitor performance against each material topic

Local environmental impact

- Number of hydrocarbon spills
- Volume of hydrocarbon spills (bbl)
- Recovered hydrocarbon\* (%)
- Hydrocarbon discharge to water (barrels)
- SO<sub>2</sub> emissions (kilotonnes)
- Number of sites with ISO 14001 certification\* (%)

Biodiversity and ecosystems

- Net positive impact (%)\*

Water management

- Freshwater consumption (million m<sup>3</sup>)
- Freshwater withdrawal (million m<sup>3</sup>)

Product stewardship and waste management

- Industrial waste generated (metric tonnes)
- Industrial waste recycled\* (%)

Examples of our contributions to UN SDGs



Given water scarcity in Saudi Arabia, the Company has a large seawater treatment and injection network of facilities. Seawater is used as the primary source of water for oil production and to ensure clean water is available for our workforce and local communities.



Embracing circular economy (reduce, reuse, recycle and remove) principles and business models across our operations and activities. For example, our recent scrap-to-commodity program successfully recycled over 200,000 drum containers and over 80,000 tons of steel. Reintroducing these materials to local manufacturers as feedstocks eases the pressure on raw materials extraction and allowed us to recover over \$30 million of value. For more information, please refer to Aramco's [circular economy section](#) on our website.



Aramco has systems in place to manage all discharged water to the sea, meeting Government requirements by investing in maintenance and monitoring systems while proactively managing operations to avoid hydrocarbon leaks and spills by maintaining asset integrity throughout the life cycle.



Committed to delivering biodiversity net gain in support of SDG15, Vision 2030 and the Saudi Green Initiative.



Partnering with organizations, such as Ipieca, WEF and others, to help promote good industry practice and better environmental performance. We are also working closely with our suppliers and creating incentives to reward them for improvements in their environmental performance.

Impact on our business



Impact on our stakeholders

\* Metric reported for the first time externally.

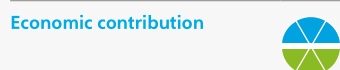
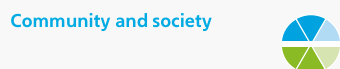
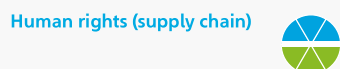
Focus area

# Growing societal value



For more details, [see page 71](#)

Material topics Impact



Impact on our business



Impact on our stakeholders

Relevant metric to monitor performance against each material topic

**Labor practices**

- Number of people on Aramco sponsored programs\*<sup>1</sup>

**National content**

- Saudization (%)
- Saudization of construction contracts (%)
- Saudization of service contracts (%)
- iktva procurement spend in-Kingdom (%)

**Human rights (supply chain)**

- % of active suppliers signed up to Aramco's Supplier Code of Conduct\*
- Number of active suppliers\*

**Community and society**

- Social investment\* (\$ million)
- Number of volunteers\*
- Number of volunteer hours\*

**Economic contribution**

- Direct economic value generated and distributed (\$ million)
- Total R&D spend (\$ million)

Examples of our contributions to UN SDGs



Aramco has various social investment programs, which look to improve the health and well-being of our host communities around the world.



Aramco believes in lifelong learning and development and continues to provide world-class learning experiences in our community. With a mission to equip the Saudi market with a highly motivated and qualified Saudi workforce, the Company has historically been building and maintaining schools for children and is also creating market/demand driven national training centers, which offer high standard vocational training programs to sponsored trainees.

The Company also has a history of supporting the community via financing various education centers for people with development disabilities, such as Hiba Center for Down Syndrome and the Abdullatif AlFozan Autism Center (the first community center of its kind in Saudi Arabia's Eastern Province to support children on the autism spectrum).



Supporting the economic development of our employees and communities in Saudi Arabia via our iktva spend, various home ownership and Aramco initiatives to seed micro industries (e.g., Roseyar, beekeeping in al-Baha, fisheries in Yanbu' and Baish, olive products in al-Jouf, coffee cultivation in Jazan).



Industry: Creating a world-class local supply chain to serve the needs of the Company and its partners, facilitating the development of a diverse, sustainable, and globally competitive energy sector in the Kingdom.

Innovation: At the heart of our business lies a commitment to innovate and maximize production from our resources, to deliver energy as efficiently as possible from the wellhead to customers.

Infrastructure: The Kingdom's Master Gas System delivers natural gas to industry across Saudi Arabia; while Aramco has also built various roads, educational facilities, cultural centers (e.g., Ithra, which delivered over 8,000 programs and welcomed more than one million visitors during 2022) and numerous other facilities across the Kingdom.



Partnering with governments, suppliers, non-profit organizations and education institutions. During 2022, \$370 million was invested in various social initiatives, supporting more than 30 non-profit organizations around the world.

\* Metric reported for the first time externally.

1. These programs include the Vocational College Internship Program (VCIP), University Internship Program (UIP), Summer enrichment program, Tomooh program, Advantage program, and ACCEL International Ajyal Center.