

Investing in growth  
Innovating for sustainability

aramco



# Positioning Aramco for the future

## Increasing shareholder and societal value sustainably

Aramco supports the aims of the Paris Agreement; all of us have a vested interest in protecting the world from human-caused climate change while pursuing sustainable development. As one of the world's largest integrated energy and chemicals companies, we have an important role to play along our value chains.

The world is facing significant global energy challenges. In Aramco's view, these confirm the world's need to increase oil and gas investments. Importantly, though, investing in conventional resources does not mean that alternative energy resources and technologies should be ignored.

We believe that any energy transition requires a new global energy consensus built on three long-term strategic pillars:

- Recognition that supplies of affordable conventional energy will continue to be required over the longer term;
- Further reductions in the carbon footprint of conventional energy and improved energy intensity across the economy, with technology a critical enabler for this; and
- New, lower carbon energy sources, complementing proven conventional resources.

Aramco is addressing all three, as part of a practical, stable, and orderly energy transition. We are investing to increase our maximum sustainable oil production capacity to 13 million barrels per day by 2027, and growing our gas production, with a mix of conventional and unconventional gas.

We aim to lower our upstream carbon intensity, gas flaring intensity, and methane intensity, which are already among the lowest in the world. We are intensifying efforts to advance enabling technologies, particularly carbon capture and storage, which is mission-critical to a sustainable future.

We are gradually adding new, lower carbon energy to our own portfolio, such as blue hydrogen and blue ammonia, renewables, and low carbon synthetic fuels. Chemicals will become a larger and more strategic part of our portfolio, growing the non-combustible, and lower emission, uses of oil.

Partnerships will be essential to drive innovation and value on an unprecedented scale and speed, including the rapid digital transformation of our industry. The right digital investments now could help deliver greater efficiency, lower costs, lower emissions, higher reliability, and higher profits over decades.

Transforming the massive existing worldwide energy system, and delivering a secure and sustainable future for everyone, is a truly formidable task that will require individual and collaborative efforts across industries, along value chains and involve governments, regulators and consumers.



We are continuing to support a global orderly energy transition towards a lower carbon emissions future, as we seek to develop blue hydrogen, advanced fuel combustion systems and lower carbon synthetic fuels."



Aramco has strengthened its unique and central role in providing the world the reliable energy it requires for an energy transition."



**H.E. Yasir O. Al-Rumayyan**  
Chairman of the Board of Directors



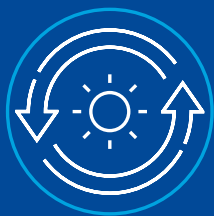
**Amin H. Nasser**  
President and CEO

# What is sustainability at Aramco?

Aramco's sustainability framework sets out the four focus areas that hold the greatest potential for our business to make long-term, positive impact.

Each of these focus areas support Aramco's corporate strategy, and align with both the UN Sustainable Development Goals (SDGs) and Saudi Arabia's Vision 2030





# Climate change and the energy transition

In line with our ambition to achieve net zero Scope 1 and Scope 2 GHG emissions across wholly-owned operated assets by 2050, we strive to provide reliable energy while maintaining leadership as one of the lowest carbon intensity producers of hydrocarbon products.



- Committed to build one of the world's largest CCS hubs (capacity target of 11 MMtpa by 2035)
- Established a \$1.5 billion Sustainability Fund to invest in technology to address climate challenges
- Target to reduce our emissions by ~52 MMtCO<sub>2</sub>e annually from 2035 onwards
- Target to lower our upstream carbon intensity by 15% by 2035
- Delivered an upstream methane intensity of 0.05%, well below the OGCI ambition (0.20% by 2025)
- 59%<sup>1,2</sup> of our total R&D spend was on sustainability-related R&D, an increase of 7% from 2021
- Participated, and purchased credits, in the first carbon credit auction held in Saudi Arabia through the Regional Voluntary Carbon Market, where 1.4 million carbon credits were sold, of which 650,000 were purchased by Aramco

<b>Scope 1 emissions<sup>3,4</sup></b> (MMtCO <sub>2</sub> e)	<b>55.7</b> (2021: 52.3)
<b>Scope 2 emissions<sup>3,4</sup></b> (MMtCO <sub>2</sub> e)	<b>16.1</b> (2021: 15.5)
<b>Upstream carbon intensity<sup>3</sup></b> (kg CO <sub>2</sub> e/boe)	<b>10.3</b> (2021: 10.7)
<b>Upstream methane intensity</b> (methane emissions from upstream operations per volume of marketed natural gas, %)	<b>0.05</b> (2021: 0.05)
<b>Flaring intensity<sup>4</sup></b> (scf/boe)	<b>4.60<sup>3</sup></b> (2021: 5.51)
<b>Energy intensity</b> (thousand Btu/boe)	<b>146.2<sup>5</sup></b> (2021: 116.6 <sup>3,4</sup> )

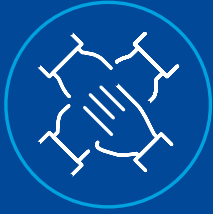
1. Includes direct R&D program costs plus estimated overheads.

2. Does not include SABIC R&D expenses.

3. This figure has undergone external limited assurance in accordance to the ISAE 3000 (revised). The assurance report can be found [online here](#).

4. The Jazan Refinery (our downstream refinery) is excluded from our GHG reporting. In 2022, it remains in the startup and stabilization phase and is not fully operational. Aramco is working to stabilize the refinery's operations and complete all necessary reporting configurations before the end of 2023. Reporting on the refinery's environmental and sustainability elements will commence immediately thereafter, in line with the company's commitment to operational transparency.

5. As we progress on our reporting journey and our controls around ESG data mature, for this metric from 2022 onwards, we have expanded the reporting boundary from Company in-Kingdom to operational control. The 2021 figure is at a Company in-Kingdom level only. In 2022, at a Company in-Kingdom level, the energy intensity was 112.9 thousand Btu/boe.



# Safe operations and people development

Aramco is home to over 70,000 people comprising more than 85 nationalities. We are committed to providing a safe and respectful working environment for all, on-site and within the community, supported by appropriate safety procedures, policies and resources. We strive to support, diversify, and empower our workforce. We are committed to respecting and protecting the rights of every single member of our workforce (employees and contractors); we expect and support our suppliers to do the same.



- Aramco was ranked number one on the 2022 Forbes "Top Companies to Work for in the Middle East" list and the highest rated company in the construction, oil and gas, mining and chemicals sectors
- Achieved our lowest attrition rate in three years (2.4%) reflecting our workforce's high satisfaction rate
- 28% of direct hires\* were female
- 50% of enrollment in Aramco's college preparatory programs were female
- 26% increase in apprentices (1,728 in 2022 versus 1,369 in 2021)
- 66% increase in interns (3,190 in 2022 versus 1,922 in 2021)
- Over 1,100 emergency exercises were conducted to train people and evaluate improvement opportunities

## Fatalities<sup>1</sup>

(number)

5

(2021: 1)

## Tier 1 process safety events

(number)

11

(2021: 11)

## Lost time injuries/illnesses rate

(number of LTI cases  
x 200,000/total work hours)

0.014<sup>1</sup>

(2021: 0.017)

## Female employees

(%)

6.4

(2021: 5.6<sup>1</sup>)

## Female employees in leadership positions

(%)

3.8

(2021: 3.1)

## Total hours of training and development\*

(million)

13.0

(2021: 12.8)

\* Metric reported for the first time externally.

1. This figure has undergone external limited assurance in accordance to the ISAE 3000 (revised). The assurance report can be found [online here](#).



# Minimizing environmental impact

We strive to conserve natural resources, apply circular models across our value chain, and to have a legacy of projects that improve both natural habitats and shared resources. We apply technology, innovation, and resources to invest in environmental protection and nature-based solutions, and we embed circular economy principles across our operations.



- Ambition to deliver net positive biodiversity and ecosystem impacts by setting a target to increase our net positive impact\* (NPI) for biodiversity and ecosystem services by 30% by 2025
- Recycled\* 39.9%<sup>1</sup> of our industrial waste (an increase in waste recycled compared to the prior year, despite the 33% rise in industrial waste)
- Launching refurbishment and recycling programs for material streams and equipment
- Over 20 initiatives incorporating circular economy principles
- Continued investments in tail gas treatment facilities
- ISO 14001 certification\* for 98%<sup>1</sup> of applicable facilities in 2022, with a view to complete coverage in 2023
- Pursuing a water neutrality strategy
- Planted 11 million mangroves and an additional one million trees during the year

<b>Freshwater consumption<sup>2</sup></b> (million m <sup>3</sup> )	<b>93.6</b> (2021: 94.6)
<b>Hydrocarbon spills</b> (number)	<b>15</b> (2021: 13)
<b>Hydrocarbon discharge to water<sup>2</sup></b> (barrels)	<b>16.4</b> (2021: 30.7)
<b>Net positive impact on biodiversity*<sup>1,3</sup></b> (%)	<b>53</b> (2021: N/A)
<b>Industrial waste generated<sup>2</sup></b> (metric tonnes)	<b>318,656</b> (2021: 240,225)
<b>Industrial waste recycled*</b> (%)	<b>39.9</b> (2021: 39.8)

\* Metric reported for the first time externally.

1. This figure has undergone external limited assurance in accordance to the ISAE 3000 (revised). The assurance report can be found [online here](#).

2. As we progress on our reporting journey and our controls around ESG data mature, for this metric, we have expanded the reporting boundary beyond just Company in-Kingdom to represent more of our global footprint. To allow comparability, we have restated the 2021 figure in line with the expanded reporting boundary.

3. The NPI metric is a new KPI developed in 2022 and there is no prior year comparative. The purpose of the NPI is to aspire to achieve net gains for biodiversity and ecosystem services. This is when overall negative impacts on biodiversity are outweighed by the biodiversity gains that are achieved through conservation projects. For the formula of the metric, please refer to page 86 in the Data section of our 2022 Sustainability Report.



# Growing societal value

We seek to grow value wherever we operate. With our biggest footprint in Saudi Arabia, we have invested in the Kingdom's oil and gas ecosystem to enhance the reliability of our supply chain, providing employment and economic opportunities to thousands of Saudi nationals. As our business expands around the world, we seek to apply the same principles and values that made Aramco a success at home.



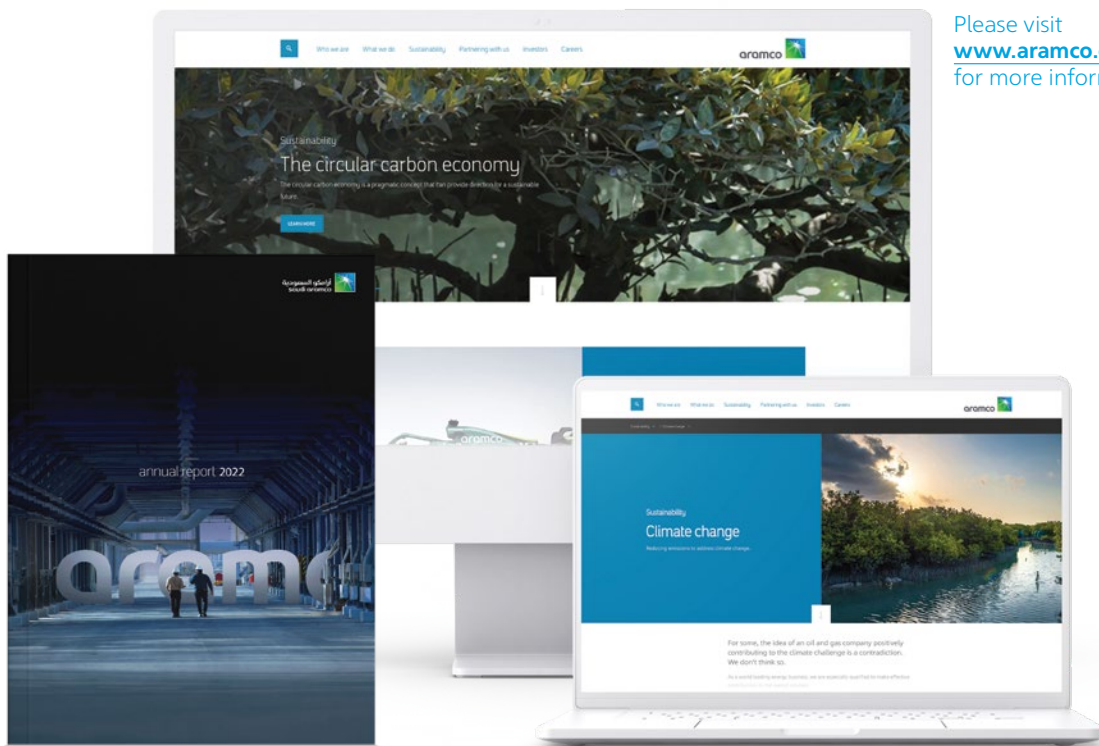
- Increased our payments to governments by 52% in 2022, compared to the prior year
- Aramco entered into over 90 agreements with an estimated value of \$17.3 billion<sup>1</sup> to build long-term collaborative relationships with strategic local suppliers
- Via our investments, encouraged suppliers to have an aggregate investment of over \$600 million<sup>1</sup> in capex, which also created over 4,000 jobs in our supply chain in Saudi Arabia
- Via iktva, facilitated creation of 31 new local manufacturers
- Made a social investment\* of \$370 million<sup>1</sup> on a range of global socio-economic and environmental initiatives

<b>iktva spend</b> (% in-Kingdom)	<b>63</b> (2021: 59)
<b>Social investment*<sup>1</sup></b> (\$ million)	<b>370</b> (2021: N/A)
<b>Total R&amp;D spend<sup>1</sup></b> (\$ billion)	<b>1.2</b> (2021: 1)
<b>Saudi nationals employed</b> (%)	<b>90.9</b> (2021: 90.5)
<b>Saudization of construction contracts</b> (%)	<b>28.0</b> (2021: 25.6)
<b>Saudization of service contracts</b> (%)	<b>57.2</b> (2021: 56.6)

\* Metric reported for the first time externally.

1. This metric is converted at a fixed rate of U.S. dollar 1.00 = SAR 3.75 for convenience only.

This document must be read together with our 2022 Sustainability Report, our 2022 Annual Report and our website



Please visit [www.aramco.com](http://www.aramco.com) for more information

Please see our 2022 Annual Report at [www.aramco.com/en/investors/reports-and-presentations](http://www.aramco.com/en/investors/reports-and-presentations)

Please visit [www.aramco.com/sustainability](http://www.aramco.com/sustainability) for more information on our approach to sustainability, our basis of preparation and our independent assurance statements for 2019, 2020, 2021 and 2022

## Contact us

We hope you find this Report engaging and informative, and we continue to welcome your input and views:

 [sustainability@aramco.com](mailto:sustainability@aramco.com)

## Social media

We are also active on the below social media platforms, so please follow us to learn more about Aramco and our sustainability journey:

 [@aramco](https://twitter.com/aramco)

 [linkedin.com/company/aramco](https://www.linkedin.com/company/aramco)