

IOGP Data Series

Data can play a vital role in improving performance. Every year, we collect data covering a range of topics on worldwide upstream operations, onshore and offshore, from participating member companies.





Safety performance indicators

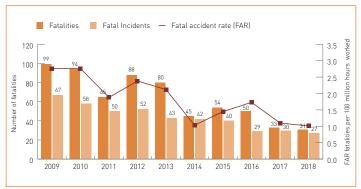
We started collecting upstream safety data in 1985, and now have the industry's largest database of safety performance, covering participating member company employees and their contractors onshore and offshore.

Our annual reports analyse results for key indicators by region, function and company:

- Number of fatalities, fatal accident rate, fatal incident rate
- Total recordable injury rate, lost time injury frequency
- Number of lost work day cases and the number of days lost
- Number of restricted work day cases and the number of restricted work days
- Number of medical treatment cases

The latest report (2018 IOGP Safety Performance Indicators) shows that the Fatal Accident Rate for reporting companies has fallen by 8% compared with 2017. The number of fatalities has decreased from 33 in 2017 to 31 in 2018.

The number of fatal incidents has also decreased from 30 in 2017 to 27 in 2018. This is against the background of a 2% increase in work hours reported.



Number of fatalities and fatal accident rate (2009-2018)



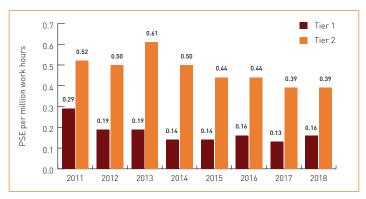
Safety performance indicators – Process safety events

We started a pilot project collecting Process Safety Event data in 2010 and have published an annual report since 2011.

The process safety events (PSE) data are based on the numbers of Tier 1 and Tier 2 process safety events reported by participating IOGP member companies, separately for:

- Onshore and offshore
- Drilling and production
- Activities
- Consequences
- Material released

The data are normalised against work hours associated with drilling and production work hours to provide PSE rates.



PSE Rate - Tier 1 and Tier 2

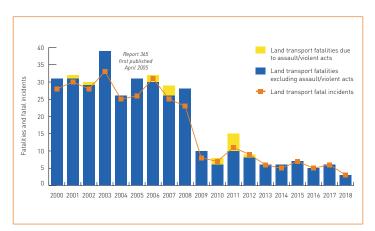


Safety performance indicators – Motor Vehicle Crashes

This report presents contributing IOGP Members' global results for:

- Number of motor vehicle crash (MVC) fatalities
- Number of MVC for each reporting group and category
- MVC rate (motor vehicle crashes per million kilometres) for each reporting group and category.

Reporting companies will typically report their own data as well as that of their associated contractors. The indicators are analysed by region for both company and contractor data.



Work-related land transport fatalities reported to IOGP

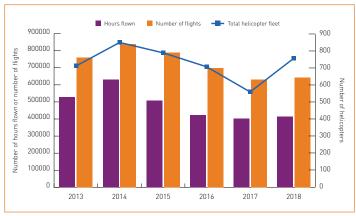


Safety performance indicators – Aviation accidents

This report presents the safety performance of the aviation industry involved in both upstream and downstream operations reported by participating IOGP member companies for 2013-2018.

The key indicators for analysis of aviation operations and safety performance are:

- numbers of fatalities
- accidents recorded
- hours flown
- passengers carried
- flights performed



Level of reporting by participating companies for helicopter operations

Well control incidents and safety alerts

IOGP Members also report well control incidents and safety alerts, you can find these – as well as narratives for all fatal events – on the IOGP Safety Zone at http://safetyzone.iogp.org

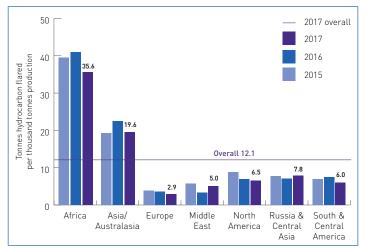


Environmental performance indicators

We have collected and published environmental data from our member companies on an annual basis since 2001. The database now represents about one third of known hydrocarbon production.

Information is aggregated at both global and regional levels and is expressed within the following environmental indicator categories:

- gaseous emissions
- energy consumption
- flaring
- produced water
- non-aqueous drilling fluids retained on cuttings discharged to sea
- spills
- fresh water



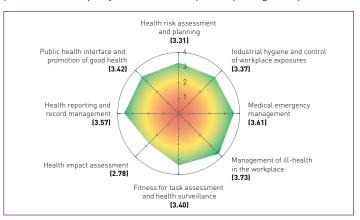
Hydrocarbon flared per unit of hydrocarbon production (by region)

Houston Office: 19219 Katy Freeway, Suite 175, Houston, TX 77094, USA



Health leading performance indicators

IOGP and IPIECA have developed two tools to assess health leading performance indicators within individual companies. These enable performance comparison between different parts of a company and between participating companies.



Percentage tool - 2018 HPI average values

| Company Code | Results by statement score | | | | | | | Average by |
|-----------------|----------------------------|-----|-----|-----|-----|-----|-----|------------|
| | G | В | E | С | А | F | D | company |
| NN | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.3 |
| SC | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| BP | 2.0 | 3.0 | 2.0 | 3.0 | 4.0 | 4.0 | 4.0 | 3.1 |
| MC | 4.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 | 3.4 |
| 0Q | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 | 3.0 | 4.0 | 3.4 |
| DP | 3.0 | 3.0 | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 3.6 |
| IJ | 3.0 | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.7 |
| IN | 4.0 | 4.0 | 4.0 | 3.0 | 3.0 | 4.0 | 4.0 | 3.7 |
| YF | 2.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.7 |
| AR | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.9 |
| ВН | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.9 |
| EF | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.9 |
| WD | 4.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.9 |
| Al | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| AP | 4.0 | 4.0 | n/a | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| BW | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| CF | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| CT | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| GJ | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |

Gap analysis tool 2018 results for Element 4 - Management of ill-health in the workplace