Basis of reporting

Below we provide the definitions and basis of reporting for our environment, health and safety, social and social enterprise performance indicators.

1) INTRODUCTION AND SCOPE

The Tullow Sustainability Report 2021 ("the Report") provides data and information for the period 1 January 2021 to 31 December 2021 and covers all operated exploration, production and decommissioning activities in the Tullow Group in addition to non-operated net equity emissions.

For all health and safety data and most of the environmental data, we use the definitions set by the International Association of Oil and Gas Producers (IOGP) to guide our reporting requirements; this ensures an accurate benchmark against credible industry data. IOGP defines all the incident criteria and operations which should be included. We also are in compliance with Global Reporting Initiative (GRI) definitions as referenced within the GRI Sustainability Reporting Standards.

2) ENVIRONMENT

For 2021, the reported data has been sourced from Tullow production and exploration operations for controlled sites where Tullow sets and enforces the EHS management system and directly leads and supervises the work. This include sites or activities where Tullow is the operator of the facility or asset during the year, e.g. wells drilled, seismic surveys and camps operations. Data associated with monitored activities where Tullow can influence but cannot set the EHS management system and/or cannot directly supervise and enforce its application is collected in support of net equity and/or Scope 3 greenhouse gas emissions reporting. For further detail on how Tullow calculates and reports greenhouse gas emissions, please see the Greenhouse Gas Methodology Document available at www.tullowoil.com/sustainability.

Environmental data is focussed on atmospheric emissions (Scope 1, 2 and 3 emissions), waste, water, uncontrolled releases / spills, energy use and compliance with environmental laws and regulations.

Atmospheric emissions, water and waste data is included for Tullow's offices in London (Chiswick) and Ghana (Accra). An Environmental Reporting Procedure is in place to ensure data is reported consistently within the Synergi Life software application, the environmental reporting system Tullow implemented in 2020. Data is checked, verified and signed off by each Business Unit and is subject to further corporate assurance and independent assurance in advance of public disclosure.

If there are changes in the methodology for calculating data, this will be highlighted in our reporting, and if required, historical restatements will be made. The gas composition of vent gas from tank tops on Tullow's operated Jubilee FPSO in Ghana was reviewed in 2020. Previously the vent gas was assumed as 100% methane, however, laboratory analysis indicated a methane composition of <1.5%. The actual composition of methane in vent gas was determined as 1.371% and hence in our 2021 reporting we have restated methane emissions for the period 2017-2020. In addition, emission factors for fuels utilised in our Ghana operations have been updated. Lab analysis of our Ghana fuels was reviewed in 2021, allowing for more specific calculation of Scope 1 emissions utilising the specific densities of diesel, jet fuel, natural gas and vent gas in our operated assets in Ghana. Where material, we restated our emissions reported for 2020 to ensure consistency in our calculations and for transparent reporting against our 2020 baseline.

3) HEALTH AND SAFETY

The Health and Safety data is sourced from all Tullow operated sites including Production, Drilling and Exploration activities as well as Tullow offices. All contractors such as drilling, and exploration companies and their associated sub-contractors are included in our data if they operate under our management system. Tullow adheres to the IOGP Recommended Guidance on the categorisation of all safety incidents and occupational health conditions. An EHS Incident Reporting, Investigation & Statistics Data Procedure governs the reporting requirements for EHS incidents and monthly EHS statistics.

4) SOCIAL

Social data is gathered from all Tullow operated sites and includes all full time, part time and fixed term employees, expatriate employees and contractors working for Tullow, at any of our sites or company offices. The figures are from monthly and annual Human Resources (HR) headcount report as of 31 December 2021 generated from the Success Factors software application, the HR Information Systems.

5) SOCIAL INVESTMENT

Social investment

Discretionary Socio-economic Investment (SEI) refers to all our discretionary Socio-economic Investment projects expenditure. The metrics covers all locations with an allocated discretionary SEI budget and accounts for financial contributions only on an accruals basis.

SEI is governed by the Non Technical Risk Standard T-SEA-STD-0001 and Social Investment (SI) Expenditure Reporting Guidelines T-ESP-GUD-0009.

Local Budget Holders/Project Managers collate a Dashboard with Socio-economic investment expenditure biannually that is sourced from original invoices and reconciled to the data in the Finance system. The data is consolidated to determine the Group position and assured by the Shared Prosperity Manager. We report our SEI spend in US$.

Reporting Criteria & Definitions

A summary of the criteria and definitions used to record our data is listed below:

Indicator	Description	Basis of calculation	Unit of measure
ATMOSPHERIC EMISSIONS			
Total air emissions (CO_2e)	Combines carbon dioxide, methane and nitrous oxides emissions known to contribute to the phenomenon known as the greenhouse effect. Total air emissions include Scope 1, Scope 2, and Scope 3 emissions (CO_2e).	Group wide emissions for seismic surveys, drilling, well testing and production are calculated using known industry conversion factors sourced from IPIECA, IOGP and DEFRA and others which allow the calculation of emissions where direct monitoring is not undertaken. It involves the use of an activity factor e.g. fuel consumption, flow rate to vent or flare, and an emission factor.	Tonnes
Scope 1 emissions	All direct GHG emissions at the company. Energy sources include diesel, petrol, gas, gasoil (marine operations) and heavy fuel (marine operations) consumed at oil and gas production and exploration sites. Vehicle kilometres travelled, Gas and Diesel at the 3 main offices as well as direct emissions from venting and flaring at operational sites.	Data reported sourced from direct meter readings or daily reports.	Tonnes of CO_2e
Scope 2 emissions	All indirect GHG emissions from consumption of purchased electricity at the 3 main offices.	Emissions from consumption of purchased electricity at Tullow's main offices are calculated using the 2019 DEFRA UK electricity conversion factor.	Tonnes of CO_2e
Scope 3 emissions	Indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream emissions. Tullow reports four categories of Scope 3 emissions: upstream transportation and distribution, waste generated in operations, business travel, and employee commuting.	Emissions from uncontrolled air travel are calculated using conversion factors sourced from the 2020 version of the UK Government GHG Conversion Factors for Company Reporting 2020, v1, Business Travel.	Tonnes of CO_2e
Total Scope 1 and 2 emissions by production intensity	Combines carbon dioxide, methane and nitrous oxides emissions per unit production. Emissions intensity is calculated with Scope 1 and 2 emissions only.	Total CO_2e divided by unit production.	Tonnes of CO2e per thousand tonnes hydrocarbon produced / Kg CO_2e per boe (barrel of oil equivalent)

Indicator	Description	Basis of calculation	Unit of measure
Total emissions from Hydrocarbon Flared	Hydrocarbon combustion at oil or gas production and exploration sites Primarily flaring is used for burning off excess flammable gas released by pressure relief valves during unplanned over-pressuring of plant equipment. During plant or partial plant start-ups and shutdowns, flare stacks are also often used for the planned combustion of gases over relatively short periods. This also includes the gas flared during the drilling operations as a safety measure in case of emergency situations and the oil combustion during the well testing operations to determine the types of fluids the well can produce, the pressure and flow rates of fluids and other characteristics of the underground reservoir. Emissions from hydrocarbon flaring are included in total air emissions.	Emissions from hydrocarbons flared are calculated using reported data sourced from direct meter readings or daily report data, converted to CO2e using conversion factors.	Tonnes of CO_2e
Total emissions from hydrocarbon flared by production	Hydrocarbon combustion at oil or gas production and exploration sites per unit production.	Emissions from hydrocarbons flared are calculated using reported data sourced from direct meter readings or daily report data, converted to CO_2e using conversion factors, divided by unit production.	Tonnes CO_2e per thousand tonnes hydrocarbon produced

WATER WITHDRAWAL BY SOURCE

Metered water	Supply of drinking water quality by a public organisation	Data reported sourced from direct meter readings or daily report data.	Megalitres
Seawater	Volume of salt (not fresh) water utilised during operations	Data reported sourced from direct meter readings or daily report data.	Megalitres
Ground water	Volume of water withdrawn from an underground formation and utilised during operations	Data reported sourced from direct meter readings or daily report data.	Megalitres
Surface water	Volume of fresh water utilised during operations	Data reported sourced from direct meter readings or daily report data.	Megalitres
Produced water	Volume of water which is produced during oil, gas or condensate production operations and includes formation water, condensation water, re-produced injection water and water use for desalting oil.	Data reported sourced from direct meter readings or daily report data.	Megalitres
Other water	Volume of water not included in the other categories utilised during operations, e.g. bunkering water	Data reported sourced from direct meter readings or daily report data.	Megalitres

Indicator	Description	Basis of calculation	Unit of measure
WATER DISCHARGE BY DESTINATION			
Surface water	Volume of water discharged to fresh water bodies, e.g. lake, river	Data reported sourced from direct meter readings or daily report data.	Megalitres
Ground water	Volume of water which is discharged or injected into underground formations, typically sea water is used for this purpose in Ghana operations	Data reported sourced from direct meter readings on water injection or daily report data.	Megalitres
Seawater	Volume of water, typically produced ground water from Ghana operations, which is discharged to sea	Data reported sourced from direct meter readings on produced water discharged to sea.	Megalitres
Other discharged water	Volume of other water discharges, such as bilgewater, process water, ballast water, produced water	Data reported sourced from direct meter readings on water discharged overboard, produced water, or daily report data	Megalitres
WATER CONSUMPTION			
Total water consumption	Sum of all water that has been withdrawn and not released back to surface water, groundwater, seawater, or a third party, e.g. no longer available for use by the ecosystem or local community	The total volume of water withdrawn less the total volume of water discharged	Megalitres
Total water consumption from all areas with water stress	Sum of all water that has been withdrawn and is no longer available for use by the ecosystem or local community in areas where there are existing constraints on the availability, quality or accessibility of water (measured at catchment level at a minimum)	Subjective assessment of water consumption (withdrawn and not discharged) in areas of operations considering existing ability, or lack thereof, to meet the human and ecological demand for water	Megalitres
UNCONTROLLED RELEASES (SPILLS)			
Number of uncontrolled releases (> 150 litres)	Accidental or unplanned release of oil or chemicals to the environment. This also includes uncontrolled releases of sewage, drilling fluids, grey and black water.	Absolute number of spills greater than 150 litres; as reported on the Synergi Life reporting system.	Absolute number of spills
Volume of uncontrolled releases (> 150 litres)	Total volume of accidental or unplanned release of oil or chemicals to the environment. This also includes uncontrolled releases of sewage, drilling fluids, grey and black water. This excludes the volume of all spills less than 150 litres.	Estimated tonnes discharged; as reported on the Synergi Life reporting system.	Tonnes of oil and/or chemical spilled (over 150 litres)

Indicator	Description	Basis of calculation	Unit of measure
WASTE DIRECTED TO DISPOSAL			
Non-hazardous waste disposed through incineration with energy recovery	Disposal of non-hazardous waste by means of incineration (burning) to generate electricity and/or heat	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Non-hazardous waste disposed through incineration without energy recovery	Disposal of non-hazardous waste by means of incineration (burning)	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Non-hazardous waste disposed to landfill	Removal of non-hazardous waste from site for disposal in a landfill.	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Total Non-Hazardous waste disposed	Quantity of non-hazardous waste materials deemed to have no further use and disposed of by Tullow	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Hazardous waste disposed through incineration with energy recovery	Disposal of hazardous waste by means of incineration (burning) to generate electricity and/or heat	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Hazardous waste disposed through incineration without energy recovery	Disposal of hazardous waste by means of incineration (burning)	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Hazardous waste disposed to landfill	Removal of hazardous waste from site for disposal in a landfill.	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Total Hazardous waste disposed	Quantity of hazardous materials (as defined by the UK Environment Agency) deemed to have no further use and disposed of by Tullow.	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Total waste disposed	Quantity of hazardous and non-hazardous waste disposed of by Tullow	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
Total waste disposed to landfill	Quantity of hazardous and non-hazardous waste disposed to landfill by Tullow	Data reported sourced from weigh bridge, waste tracking data or waste transfer notes.	Tonnes
WASTE DIVERTED FROM DISPOSAL			
Non-hazardous waste recycled, reused or treated	Quantity of non-hazardous materials converted into usable materials prior to disposal	Data reported sourced from waste tracking data or waste transfer notes, meter systems.	Tonnes

Indicator	Description	Basis of calculation	Unit of measure
Hazardous waste recycled, reused or treated	Quantity of hazardous materials (as defined by the UK Environment Agency) converted into usable materials prior to disposal	Data reported sourced from waste tracking data or waste transfer notes, meter systems.	Tonnes
Total waste recycled, reused or treated	Quantity of hazardous and non-hazardous waste converted into usable materials prior to disposal	Data reported sourced from waste tracking data or waste transfer notes, meter systems.	Tonnes
Non-hazardous waste recycled / Re-used / Treated	Percentage of non-hazardous materials converted into usable materials prior to disposal	Data reported sourced from waste tracking data or waste transfer notes, meter systems.	Percentage
Hazardous waste recycled / Re-used / Treated	Percentage of hazardous materials (as defined by the UK Environment Agency) converted into usable materials prior to disposal	Data reported sourced from waste tracking data or waste transfer notes, meter systems.	Percentage
Total waste recycled, reused or treated	Percentage of hazardous and non-hazardous converted into usable materials prior to disposal	Data reported sourced from waste tracking data or waste transfer notes, meter systems.	Percentage
ENERGY USE			
Non-renewable Energy Sources	Energy source that cannot be replenished, reproduced, grown or generated in a short time period through ecological cycles or agricultural processes	Direct meter readings or invoice data	kWh/GWh
Renewable Energy Generated on Site by Type	Energy that is capable of being replenished in a short time through ecological cycles or agricultural processes	Direct meter readings	kWh/GWh
Renewable Energy Purchase on Site by Type	Electricity drawn from the grid (electricity supply), produced from renewable sources	Direct meter readings or invoice data, renewable energy generation certification	kWh/GWh
Total energy consumption	Total amount of energy consumed by the company. Energy sources include electricity, gas and diesel consumed at oil and gas production and exploration sites. Gas and electricity at offices.	Direct meter readings or invoice data for diesel, gas and electricity.	kWh/GWh
Total indirect and direct energy use by production	Total amount of energy consumed by the company (as above) divided by unit production.	Total direct and indirect energy use divided by unit production.	Energy: GJ per thousand tonnes hydrocarbon produced

Indicator	Description	Basis of calculation	Unit of measure
FINES			
Fines for Environmental non-compliance	Payments made to the national regulator for unauthorised breaches against operating permits.	Accounting systems.	$ US Dollars
HEALTH & SAFETY			
[1] THIRD PARTY DEFINITION INCLUDES MEMBERS OF THE PUBLIC			
Fatality	Death of a company or contract employee due to a work-related incident or illness. “Delayed” deaths that occur after the incident are included if the deaths were a direct result of the incident e.g. if a fire killed one person outright, and a second died three weeks later from lung damage caused by the fire, both are reported. This excludes third parties1 (person(s) with no business relation to company or contractor) fatalities.	IOGP definitions and methodology	Absolute number of fatalities
High Potential Incident (HIPO)	An incident where the potential severity is a level 4 or 5 (this includes near miss, environmental harm, security, illnesses and injuries). The actual severity of the incident may be lower than the potential severity, providing an opportunity for the business to learn from what could have been a more serious accident.	Tullow Oil Incident Severity table.	Potential severity of incident.
Lost Time Injury (LTI), Lost Time Injury Frequency (LTIF)	Any work related injury, other than a fatal injury, which results in a person being unfit for work on any day after the day of occurrence of the occupational injury. "Any day" includes rest days, weekend days, leave days, public holidays or days after ceasing employment.	IOGP definitions and methodology	LTI: absolute number of injuries LTIF: number of LTIs per million man hours worked.
Total exposure hours worked	All hours worked by employees and contractors	IOGP definitions and methodology, calculated from days worked.	Hours
Medical Treatment Case (MTC)	A work-related injury or illness that results in medical treatment beyond first aid, but that did not involve death (fatality), one or more days away from work (LTI), or one or more days of restricted work (RWDC) i.e.remained at work and was not transferred or restricted	IOGP definitions and methodology	Absolute number of injuries

Indicator	Description	Basis of calculation	Unit of measure
Near Miss (NM)	An occurrence such as failure of the management system or equipment that in other circumstances would or could have caused a fatality, LTI, or other such injury. Includes environmental near miss or other incident that could have caused damage to assets or company reputation.	IOGP definitions and methodology	Absolute number of incidents
Restricted Work Day Case (RWDC)	Any work-related injury other than a fatality or lost work day case which results in a person being unfit for full performance of the regular job on any day after the occurrence of the occupational injury. Work performed might be: • an assignment to a temporary job; • part-time work at the regular job; • continuation full-time in the regular job but not performing all the usual duties of the job Where no meaningful restricted work is being performed, the incident is recorded as a Lost Time Incident	IOGP definitions and methodology	Absolute number of injuries
Total Recordable Injuries (TRI), Total Recordable Injuries Rate (TRIR)	The sum of all fatalities (excluding third parties), LTIs, RWDCs, and MTCs excluding occupational illness incidents.	IOGP definitions and methodology	TRI: Absolute number of injuries TRIR: number of TRI's per million man hours worked
Lost work day case (LWDC)	An incident resulting in at least one day off work. Fatal incidents are not included.	IOGP definitions and methodology	Lost work day case (LWDC)

Indicator	Description	Basis of calculation	Unit of measure
Vehicle Accident Frequency (VAF)	Any work-related motor vehicle crash leading to consequences 1 – 5 in the below table contribute to the Vehicle Accident Frequency. (VAF) Motor Vehicle Incidents: Work related vehicle damage or personal injury due to a vehicle related event, or rollover. Motor vehicle crashes (MVI's) are subdivided into 6 categories: 1. MVI leading to fatalities 2. MVI leading to LTI as most severe outcome 3. MVI leading to MTC or RWDC as most severe outcome 4. MVI involving a rollover - not resulting in a fatality, LWDC, RWDC or MTC 5. MVI, where the vehicle cannot be driven from the scene under its own power 6. MVI leading to less severe consequences than any of the above (these do not contribute to the Vehicle Accident Frequency)	Tullow Oil Incident Management & EHS Statistics Reporting Procedure	VAF: Motor Vehicle Incidents (MVI) per million kilometres driven

SOCIAL

Number of employees	Total number of local and resident expatriate permanent and fixed term staff paid directly by Tullow.	HR Records	Absolute number
Number of expatriates	Total number of employees and contractors working for Tullow in a country different from their contract of employment. This includes employees on secondment and would be on expatriate employment terms.	HR Records	Absolute number
Number of people on local contract terms	Total number of employees and contractors who are resident of a particular country and their terms and conditions of employment is in line with this country's regulations and obligations.	HR Records	Absolute number
Number of local nationals	The total number of permanent employees who work in a country which matches their nationality e.g. number of Ghanaians in Ghana.	HR Records	Absolute number

Indicator	Description	Basis of calculation	Unit of measure
Number of Africans	The total number of employees and contractors that have an African passport. (If dual nationality, African triumphs)	HR Records	Absolute number
Number of females in the workforce	Total number of employees and contractors who are female.	HR Records	Absolute number
Number of female managers	Total number of managers who are female.	HR Records	Absolute number
Number of managers	A manager is any individual who has responsibility for employee and contractor direct line report(s).	HR Records	Absolute number
Number of senior leaders	A Senior leader is any individual who is a level 11 and above	HR Records	Absolute number
SOCIAL INVESTMENT			
Discretionary expenditure	Discretionary expenditure refers to voluntary community investment financial contributions.	Year-end actual spend data reconciled to data in the finance system	$ US dollars
LOCAL CONTENT			
Spend with local suppliers	Spend includes spend on behalf of the joint venture partners. Local suppliers are defined at Group as companies with more than 50% equity in the hands of citizens of the host country and which are registered in the host country.	Year end actual spend data recorded in the finance system SAP	US dollars
Spend with joint venture suppliers	Spend includes spend o behalf of the joint venture partners. Joint venture suppliers are defined at Group as companies with between 10% and 49.9% equity in the hands of citizens of the host country, and which are registered in the host country.	Year end actual spend data recorded in the finance system (SAP)	US dollars
Spend with international suppliers registered in country (INTRIC)	Spend includes spend on behalf of the joint venture partners. INTRIC suppliers are defined as international suppliers to the oil and gas industry that have established and registered entities in the host country.	Year end actual spend data recorded in the finance system (SAP)	US dollars

Indicator	Description	Basis of calculation	Unit of measure
Spend with international suppliers	Spend includes spend on behalf of the joint venture partners. International suppliers are defined as international suppliers that do not set up in a host country and yet the goods and services they provide are crucial to Tullow operations. Often, they are the only producer in the global market of specialist niche goods and services. Nevertheless, they are essential to enabling Tullow's in-country operations.	Year-end actual spend data recorded in the finance system (SAP)	$ US dollars

[1] For further detail on how Tullow reports atmospheric emissions on a Net Equity as well as Operated basis, please see our Greenhouse Gas Emissions Scope & Calculation Methodology document available at www.tullowoil.com/sustainability