	tainability Reporting Guidance	
Ipiec	a Disclosures	Reference Page
	Governance and Busine	ss Ethics
Governance and	GOV-1: Governance approach	Commitment to Governance, pages 259-287
management systems	GOV-2: Management systems	Corporate Governance at PETRONAS, pages 287-292
Business ethics and transparency	GOV-3: Preventing corruption	Risks Linked to Creating Value, page 93 Corporate Governance at PETRONAS, page 290 & 293
	GOV-4: Transparency of payments to host governments	Letter from the Chairman, page 42 Letter from the Executive Vice President and Group Chief Financial Officer, page 56
	Climate Change and I	Energy
Climate strategy and risk	CCE-1: Climate governance and strategy	Sustainability Statement, pages 155-159 Safeguard the Environment, page 161
	CCE-2: Climate risk and opportunities	Safeguard the Environment, pages 161-165
Technology	CCE-3: Lower-carbon technology	PETRONAS Energy Transition Strategy, pages 104-105 Project Delivery and Technology, page 139 Gentari, pages 145-148
Emissions	CCE-4: Greenhouse gas (GHG) emissions	Safeguard the Environment, pages 167-168 & 171-173
	CCE-5: Methane emissions	Safeguard the Environment, pages 168-170
Energy use	CCE-6: Energy use	Positive Social Impact, page 227 Five-Year Sustainability Key Performance Data, page 252
Flaring	CCE-7: Flared gas	Five-Year Sustainability Key Performance Data, page 249
	Environment	
Water	ENV-1: Freshwater	Other Businesses, page 154 Safeguard the Environment, page 181 Five-Year Sustainability Key Performance Data, page 252
	ENV-2: Discharges to water	Safeguard the Environment, page 181 Five-Year Sustainability Key Performance Data, page 252
Biodiversity	ENV-3: biodiversity policy and strategy	Safeguard the Environment, pages 184-186
	ENV-4: Protected and priority areas for biodiversity conservation	Safeguard the Environment, pages 186-187

Ipieca	Disclosures	Reference Page
Environment (cont'd.)		
Air emissions	ENV-5: Emissions to air	Safeguard the Environment, page 181, Five-Year Sustainability Key Performance Data, page 249 & 252
Spills	ENV-6: Spills to the environment	Safeguard the Environment, page 181 Five-Year Sustainability Key Performance Data, page 252
Materials management	ENV-7: Materials management	Other Businesses, page 154 Safeguard the Environment, page 181 Positive Social Impact, page 215 Five-Year Sustainability Key Performance Data, page 252
	ENV-8: Decommissioning	Safeguard the Environment, pages 181- 182
Decommissioning	ENV-1: Freshwater	Safeguard the Environment, pages 181- 182
	Safety, health and se	curity
Workforce protection	SHS-1: Safety, health and security engagement	Positive Social Impact, pages 202-203 & 233
	SHS-2: Workforce health	Risks Linked to Creating Value, page 95 Positive Social Impact, pages 192-195 & 198-199
	SHS-3: Occupational injury and illness incidents	Positive Social Impact, page 197 Five-Year Sustainability Key Performance Data, page 253
Product health, safety and environmental risk	SHS-5: Product stewardship	Positive Social Impact, pages 213-215
Process safety	SHS-6: Process safety	Positive Social Impact, page 197
Security	SHS-7: Security risk management	Positive Social Impact, pages 200-203
	Social	
Human rights management	SOC-1: Human rights due diligence	Material Topics, page 84 Positive Social Impact, page 190 & 205-209 Five-Year Sustainability Key Performance Data, page 258
	SOC-2: Suppliers and human rights	Letter from the Vice President and Chief Sustainability Officer, page 61 Positive Social Impact, page 204 & 206-208
	SOC-3: Security and human rights	Positive Social Impact, pages 203-204 & 206- 209

Ipiec	a Disclosures	Reference Page
	Social (cont'd.)	
Labour practices	SOC-4: Site-based labour practices and worker accommodation	Positive Social Impact, pages 205-209
	SOC-5: Workforce diversity and inclusion	Positive Social Impact, pages 216-217 Five-Year Sustainability Key Performance Data, page 256
	SOC-6: Workforce engagement	Engaging with Stakeholders, page 73 Positive Social Impact, pages 218 & 229
	SOC-7: Workforce training and development	Positive Social Impact, pages 222-247 Five-Year Sustainability Key Performance Data, pages 257-258
	SOC-8: Workforce non-retaliation and grievance mechanisms	Sustainability Highlights, page 14 Other Businesses, page 152 Positive Social Impact, page 190, 204-205 & 209
Community engagement	SOC-9: Local community impacts and engagement	Engaging with Stakeholders, pages 70-72 & 75 -76 Positive Social Impact, page 233, 242 & 246
	SOC-10: Indigenous peoples	Upstream, page 109 Positive Social Impact, pages 204-205, 239 & 244
	SOC-11: Land acquisition and involuntary resettlement	Positive Social Impact, pages 204-205
	SOC-12: Community grievance mechanisms	Positive Social Impact, page 209
	SOC-13: Social investment	Other Businesses, page 152 Positive Social Impact, page 234
Local content	SOC-14: Local procurement and supplier development	Engaging with Stakeholders, page 75 Other Businesses, page 152 Positive Social Impact, pages 210-215
	SOC-15: Local hiring practices	Positive Social Impact, pages 216-217 Five-Year Sustainability Key Performance Data, pages 254-256

#### **Global Reporting Initiative (GRI) Standards**

PETRONAS has reported the information cited in this GRI content index for the period covering the full calendar year from 1 January to 31 December 2022 with reference to the GRI Standards.

GRI	Disclosure	Reference Page
GRI 2: General Disclosures	2-1 Organisational details	About This Report, pages 8-9 PETRONAS an Overview, pages 10-11
	2-2 Entities included in the organisation's sustainability reporting	About This Report, page 8
	2-3 Reporting period, frequency and contact point	About This Report, page 8
	2-4 Restatements of information	Five-Year Sustainability Key Performance Data, pages 248-253
	2-5 External assurance	About This Report, page 9
	2-6 Activities, value chain and other business relationships	PETRONAS an Overview, pages 22-25
	2-7 Employees	Five-Year Sustainability Key Performance Data, pages 254-256
	2-8 Workers who are not employees	Five-Year Sustainability Key Performance Data, page 256
	2-9 Governance structure and composition	Sustainability Statement, pages 155-157, Board Composition, page 259 Corporate Governance at PETRONAS, pages 276-277
	2-10 Nomination and selection of the highest governance body	Corporate Governance at PETRONAS, page 286
	2-11 Chair of the highest governance body	Profile of Board of Directors, page 260
	2-12 Role of the highest governance body in overseeing the management of impacts	Sustainability Statement, pages 155-157 Corporate Governance at PETRONAS, page 284
	2-13 Delegation of responsibility for managing impacts	Sustainability Statement, pages 155-157
	2-14 Role of the highest governance body in sustainability reporting	About This Report, page 9
	2-15 Conflicts of interest	Corporate Governance at PETRONAS, page 282
	2-17 Collective knowledge of the highest governance body	Corporate Governance at PETRONAS, pages 283-284
	2-19 Remuneration policies	Corporate Governance at PETRONAS, page 284
	2-20 Process to determine remuneration	Corporate Governance at PETRONAS, page 276 & 286
	2-22 Statement on sustainable development strategy	Letter from the Chairman & Letter from the President and Group Chief Executive Officer, pages 40-53

GRI	Disclosure	Reference Page
GRI 2: General Disclosures (cont'd.)	2-23 Policy commitments	Positive Social Impact, pages 204-207 & 210, Corporate Governance at PETRONAS, page 287 & 293
	2-24 Embedding policy commitments	Positive Social Impact, pages 204-207 & 210,
	2-25 Processes to remediate negative impacts	Positive Social Impact, page 209
	2-26 Mechanisms for seeking advice and raising concerns	Corporate Governance at PETRONAS, page 293
	2-28 Membership associations	Sustainability Statement, page 159
	2-29 Approach to stakeholder engagement	Engaging with Stakeholders, pages 70-77
	2-30 Collective bargaining agreements	Positive Social Impact, page 205 & 207
GRI 3: Material Topics 2021	3-1 Process to determine material topics	Material Topics, page 80
	3-2 List of material topics	Material Topics, pages 81-85
	3-3 Management of material topics	Material Topics, pages 81-85
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Letter from the Executive Vice President and Group Chief Financial Officer, page 56 Positive Social Impact, pages 234-247 Group Financial Results and Position, pages 294-299 Financial Report, page 109 &111
	201-2 Financial implications and other risks and opportunities due to climate change	Safeguard the Environment, pages 163-165
	201-3 Defined benefit plan obligations and other retirement plans	Financial Report, page 42 & 109
	201-4 Financial assistance received from government	Financial Report, page 113
GRI 202: Market Presence 2016	202-1 Ratios of standard entry-level wage by gender compared to local minimum wage	Positive Social Impact, page 216
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Positive Social Impact, pages 233-247
	203-2 Significant indirect economic impacts	Engaging with Stakeholders, pages 70-77 Positive Social Impact, pages 233-247
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Corporate Governance at PETRONAS, pages 290-293
	205-3 Confirmed incidents of corruption and actions taken	Other Businesses, page 154

GR	Disclosure	Reference Page
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Sustainability Statement, page 154 Safeguard the Environment, page 181 Positive Social Impact, page 215 Five-Year Sustainability Performance Key Data, page 252
	301-2 Recycled input materials used	Safeguard the Environment, pages 174-175
GRI 302: Energy 2016	302-1 Energy consumption within the organisation	Positive Social Impact, page 227 Five-Year Sustainability Performance Key Data, page 252
	302-2 Energy consumption outside of the organisation	Safeguard the Environment, pages 174-175
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Positive Social Impact, page 245 & 247
	303-2 Management of water discharge-related impacts	Safeguard the Environment, page 181
	303-3 Water withdrawal	Sustainability Statement, page 154 Safeguard the Environment, page 181 Five-Year Sustainability Performance Key Data, page 252
	303-4 Water discharge	Safeguard the Environment, page 181 Five-Year Sustainability Performance Key Data, page 252
	303-5 Water consumption	Sustainability Statement, page 154 Safeguard the Environment, page 181 Five-Year Sustainability Performance Key Data, page 252
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Safeguard the Environment, page 187
	304-2 Significant impacts of activities, products and services on biodiversity	Safeguard the Environment, page 184-186
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Safeguard the Environment, page 187
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Safeguard the Environment, page 167 Five-Year Sustainability Performance Key Data, page 249
	305-2 Energy indirect (Scope 2) GHG emissions	Five-Year Sustainability Performance Key Data, page 249
	305-3 Other indirect (Scope 3) GHG emissions	Five-Year Sustainability Performance Key Data, page 251

GRI	Disclosure	Reference Page
GRI 305: Emissions 2016 (cont'd.)	305-4 GHG emissions intensity	Five-Year Sustainability Performance Key Data, page 249
	305-5 Reduction of GHG emissions	Safeguard the Environment, page 170-172 Five-Year Sustainability Performance Key Data, page 250
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Five-Year Sustainability Performance Key Data, page 249
GRI 306: Waste 2020	306-2 Management of significant waste-related impacts	Safeguard the Environment, page 175
	306-3 Waste generated	Safeguard the Environment, pages 174-175
	306-4 Waste diverted from disposal	Safeguard the Environment, pages 176-179
	306-5 Waste directed to disposal	Five-Year Sustainability Performance Key Data, page 252
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	Positive Social Impact, page 211
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Five-Year Sustainability Performance Key Data, pages 256-257
	401-2 Benefits provided to full-time employees that are not provided to temporary or part- time employees	Five-Year Sustainability Performance Key Data, page 256
	401-3 Parental leave	Five-Year Sustainability Performance Key Data, page 256
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Positive Social Impact, page 189
	403-2 Hazard identification, risk assessment, and incident investigation	Positive Social Impact, page 196
	403-3 Occupational health services	Positive Social Impact, pages 192-193 & 195-196
	403-4 Worker participation, consultation, and communication on occupational health and safety	Positive Social Impact, page 233
	403-5 Worker training on occupational health and safety	Positive Social Impact, pages 198-199
	403-6 Promotion of worker health	Positive Social Impact, pages 192-193
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Risks Linked to Creating Value, page 95

GRI	Disclosure	Reference Page
GRI 403: Occupational Health and Safety 2018 (cont'd.)	403-9 Work-related injuries	Performance by Capitals, page 69 Five-Year Sustainability Performance Key Data, page 253
	403-10 Work-related ill health	Performance by Capitals, page 69 Five-Year Sustainability Performance Key Data, page 253
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Five-Year Sustainability Performance Key Data, page 257
	404-2 Programmes for upgrading employee skills and transition assistance programmes	Positive Social Impact, pages 222-226
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Five-Year Sustainability Performance Key Data, page 256 & 259-275
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Positive Social Impact, page 205
GRI 408: Child Labour 2016	408-1 Operations and suppliers at significant risk for incidents of child Labour	Positive Social Impact, pages 205-206
GRI 409: Forced or Compulsory Labour 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory Labour	Positive Social Impact, page 206
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	Positive Social Impact, page 203 Five-Year Sustainability Performance Key Data, page 258
GRI 411: Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Positive Social Impact, page 205
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programmes	Positive Social Impact, page 233
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Positive Social Impact, pages 205-207
	414-2 Negative social impacts in the supply chain and actions taken	Positive Social Impact, page 209
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Positive Social Impact, pages 210-212
	416-2 Incidents of non- compliance concerning the health and safety impacts of products and services	Five-Year Sustainability Performance Key Data, page 253
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Positive Social Impact, page 213

World Economic Forum's (WEF) Stakeholder Capitalism Metrics		
WEF	Disclosures	Reference Page
Principles of Governance: Core metrics and disclosures		
Governing purpose	Setting purpose	About This Report, page 3 Letter from the Chairman, pages 43-45 Our Integrated Approach to Value Creation, pages 63-65
Quality of governing body	Governance body composition	Sustainability Statement, pages 155-158 Profile of Board of Directors, pages 260-275 Corporate Governance at PETRONAS, pages 282-284
Stakeholder engagement	Material issues impacting stakeholders	Engaging with Stakeholders, pages 70-77 Material Topics, pages 80-85
Ethical behaviour	Anti-corruption	Corporate Governance at PETRONAS, page 293
	Protected ethics advice and reporting mechanisms	Corporate Governance at PETRONAS, page 293
Risk and opportunity oversight	Integrating risk and opportunity into business process	Risks Linked to Creating Value, pages 87-89
	Planet: Core metrics and	disclosures
Climate Change	Greenhouse gas (GHG) emissions	Safeguard the Environment, pages 161-173
	TCFD implementation	Sustainability Statement, pages 155-158 Safeguard the Environment, pages 161-166
Nature loss	Land use and ecological sensitivity	Safeguard the Environment, pages 184-187
Freshwater availability	Water consumption and withdrawal in water-stressed areas	Sustainability Statement, page 154 Safeguard the Environment, page 181 Five-Year Sustainability Key Performance Data, page 252
	People: Core metrics and	disclosures
Dignity and equality	Diversity and inclusion (%)	Positive Social Impact, pages 217-218 Five-Year Sustainability Key Performance Data, page 256
	Risk for incidents of child, forced or compulsory labour	Positive Social Impact, pages 204-209
Health and wellbeing	Health and safety (%)	Positive Social Impact, pages 189-199
Skills for the future	Training provided (#, \$)	Performance by Capitals, page 69 Positive Social Impact, pages 222-247

#### World Economic Forum's (WEF) Stakeholder Capitalism Metrics

WE	F Disclosures	Reference Page	
Prosperity: Core metrics an		nd disclosures	
Employment and wealth generation	Absolute number and rate of employment	Five-Year Sustainability Key Performance Data, pages 254-257	
	Economic contribution	<ol> <li>Revenue: Group Financial Results and Position, pages 294-299</li> <li>Operating cost: Group Financial Results and Position, page 294</li> <li>Employee wages and benefits: Financial Report Note 26 (page 109)</li> <li>Payment to providers of capital:         <ol> <li>Dividend: Letter from the Executive Vice President and Group Chief Financial Officer, page 56</li> <li>Financing costs: Financial Report Note 27 (page 111)</li> </ol> </li> <li>Payments to government: Letter from the Executive Vice President and Group Chief Financial Officer, page 56</li> <li>Community investment: Positive Social Impact, pages 234-247</li> <li>Financial assistance (tax incentive): Financial Report Note 28 (page 113)</li> </ol>	
	Financial investment contribution	<ol> <li>Total capital expenditures (Capex) minus depreciation, supported by narrative to describe the company's investment strategy: Group Financial Results and Position, pages 304-305</li> <li>Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders: Letter from the Executive Vice President and Group Chief Financial Officer, page 56</li> <li>Dividend paid to non-controlling interest: Financial Report Note 31 (page 116)</li> </ol>	
Innovation of better products and services	Total R&D expenses (\$)	Performance by Capitals, page 68 Project Delivery and Technology, page 140	
Community and social vitality	Total tax paid	Financial Report: Consolidated Statement of Cash Flows (page 13)	

Task Force on Climate-Related Financial Disclosures (TCFD)		
Theme	Recommended Disclosure	Reference Page
Governance	Describe the board's oversight of climate-related risks and opportunities.	Sustainability Statement, page 157
	Describe management's role in assessing and managing climate-related risks and opportunities.	Sustainability Statement, page 158
Strategy	Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Safeguard the Environment, pages 161-162
	Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Safeguard the Environment, page 164
	Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Safeguard the Environment, page 165
Risk Management	Describe the organisation's processes for identifying and assessing climate-related risks.	Safeguard the Environment, page 163
	Describe the organisation's processes for managing climate-related risks.	Safeguard the Environment, page 163
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Safeguard the Environment, page 163
Metrics and Targets	Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Safeguard the Environment, page 166
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Safeguard the Environment, page 166, Five-Year Sustainability Key Performance Data, pages 248-251
	Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Safeguard the Environment, page 166, Five-Year Sustainability Key Performance Data, pages 248-251