

Indications: the first part of the comments is visible once you open this sheet, the comments on the metrics follow below.

Link of the draft sector guidance: [https://tnfd.global/wp-content/uploads/2023/12/Draft\\_Sector-Guidance\\_Oil-and-Gas\\_Dec\\_2023.pdf?v=1701945344](https://tnfd.global/wp-content/uploads/2023/12/Draft_Sector-Guidance_Oil-and-Gas_Dec_2023.pdf?v=1701945344)

Number of companies of the oil&gas sector that submitted comments	3
Number of NGOs / Consultants that submitted comments	4
Number of comments	293

GENERAL COMMENTS ON THE DISCUSSION DOCUMENT:

Topic	QUESTIONS	RESPONSE
1 ABOUT THE LEAP APPROACH	Does the form and structure of this guide support your understanding of how the LEAP approach applies in your sector?	Yes.
	Do you agree with the additional guidance offered in the Scoping guide? Are they enough? If you have comments on this, please post them.	The definition of the scope is adequate. It locates the interested parties methodologically in terms of procedure, and even purpose. Table 2 does not clearly understand the activities related to upstream and downstream; it is poorly divided. The upstream must have the activities of: exploration, development, production, transportation and storage. In the downstream the activities are: refinery, processing, transportation, storage. It is suggested to add the topic of carbon capture, use and storage, since one wing of the oil & gas sector is considering injecting CO2 into offshore fields, so the impacts, dependencies, risks and opportunities of this exercise should also apply.
	Should the value chain be shown in a more graphic way as the metals and mining guides (p. 6) and electrical companies (p. 7) do?	The focus and development related to the value chain is scarce. For example, for the Colombian context, this could be synthesized into exploration, drilling, production, and if applicable, the other transportation and refining chains. That is, all the upstream, and the downstream. Understanding must be improved; it is suggested to review the work that CDP and Sciencebased Targets have done to define the parts of the business and its variables.
	Should it be shown (as in the metals and mining guide p.7) to stakeholders in the oil&gas sector when determining the scope of a LEAP assessment?	NR.
	Should data sources that may be useful for a LEAP assessment be shown (as in the metals and mining guide p.8)?	Yes, it is vital to provide the links, methodologies and tools to carry out LEAP analyses.
	Do you agree with the additional guidance offered by the guide for "L2"? Are they enough? If you have comments on this, please post them.	It is not clear how the valuation of impact drivers and ecosystem services is defined. We suggest including quantitative information on what is considered high, very high, medium and low. You must be clear and separate On-Shore operations from Off-Shore, since by condensing this impact changes on the ocean variable. Regarding land use, it largely depends on the magnitude of the project: locations, infrastructure, extension of intervention areas, etc., elements that vary greatly from project to project, so their impact does not necessarily have to be high. Table 3 is also poorly divided, same comment in relation to upstream and downstream. In Table 4 it would be valuable to also place the type of ecosystem service next to its functionality. It is suggested to incorporate an overview of the utility of these two tables (3&4), indicating the necessity of generating accurate assessments company management. Furthermore, it would be beneficial to complement this with an algorithm or selection criteria table to operationalize the tool selection process for analyzing dependencies and impacts, considering their abundance. This comprehensive analysis can address both positive and negative impacts, given the industry's familiarity with identifying negative impacts, assistance in dependency issues can be both useful and necessary for achieving thorough analyzes of our relationships with the ecosystems/biomes in which we operate. Additionally, this approach aligns with specific disclosure recommendations associated with describing organizational processes for identifying and evaluating impacts and dependencies. This comment applies to E1 and E2 too.
	Do you agree with the additional guidance offered by the guide for "L3"? Are they enough? If you have comments on this, please post them.	Using global information to specify impacts dependencies risks implies assuming that precision is not relevant, and although they indicate that other more precise sources can be used, TNFD should be more demanding in this. It is believed that L4 is very open as sensitive areas are defined. The concepts of integrity, importance and water stress should be here or relate to the guide with the recommendations. It is recommended to cite licensing methodologies for the hydrocarbon sector, for example CONESA. Abandoned or closed infrastructure that had no obligation to decommission should be included.
	Do you agree with the additional guidance offered by the guide for "E1"? Are they enough? If you have comments on this, please post them.	It is more reliable to use the impact arrays that have been considered by environmental licensing. They are evaluated by an authority and are based on characterization of environments, depend on precise activities, and are multidimensionally valued. That is, they are much more precise. The results of the L must be related, it is not clear that the result of the L is what places the analyzes in the E (ecosystem services and impact drivers identified in the L).
	Do you agree with the additional guidance offered by the guide for "E2"? Are they enough? If you have comments on this, please post them.	No, what would be the proposed dependencies? Sure, they are largely a function of the impacts, but what are the dependencies in each case? Specify some of the impacts on the environment since they refer to the TCFD, GRI and SASB.
	Should "E2" show a table with positive impacts as presented in the metals and mining guide (p. 51)? As which?	Yes, such as activities related to the restoration of degraded coverage and ecosystems, or making water that was confined available to the basin. In E3 and E4, some methodology must be mentioned or shown to qualify the scale of impacts and dependencies on nature.
	Do you agree with the additional guidance offered by the guide for "A1"? Are they enough? If you have comments on this, please post them.	It's enough. A3 and A4 must have mention or reference for a methodology for calculating and prioritizing risks and opportunities.
	Do you agree with the additional guidance offered by the guide for "P1"? Are they enough? If you have additional comments, please post them.	It's needed the link to the SBTN AR3T framework. IPEICA has guides for water and waste management, reference could also be made.
	Do you agree with the additional guidance offered by the guide for "P2"? Are they enough? If you have comments on this, please post them.	Alright. Various standards and frameworks used for reporting in Latin America are listed. It could be included which metrics seem most relevant to the TNFD.
	Are the tools associated in the guide useful?	Some tools are missing to determine the impacts, dependencies, risks and opportunities.
	Which parts were most useful?	Impacts and risks, as well as P2. The priority actions for the action plan in P1.
How could it be made more useful in practice?	Create an international community of knowledge that provides contextualized elements. Examples of tool usage and guidance on input information for analysis. E.g. which tool to use and what to prioritize by production segment (exploration, production, refinery, etc). ENCORE provides a good alternative for review. An example of how to use ENCORE (or another tool, application) to impact dependencies, risks and opportunities. Public case study of a company that has implemented it.	
2 CONTENTS	What content was particularly insightful?	NR
	Is there any material that you thought was unhelpful, confusing, or incorrect?	Those of L1 and L2 due to the issue of scales and the risks or inaccuracies that they imply for complex biodiversity contexts such as the Colombian one. The classified actions of the upstream and downstream of the SCOPE part.
	What additional content would be useful to include in the guide?	Concrete experiences developed. Positive impact and dependency metrics. Most of the metrics correspond to negative impacts. It would be important to consider metrics that would show progress in ecological restoration, compensation and voluntary actions, as well as conservation actions in protected areas that contribute to the fulfillment of the GBF goals. It's important to articulate these indicators with the ISO 59020 about "Circularity management and Measurement". Examples of application of methodologies. Include Carbon Capture, Use and Storage (CCUS) processes.
3 INTERSECTORAL USE	Are there any materials that would be especially useful for other sectors?	NR

COMMENTS ON THE PROPOSED METRICS IN THE DISCUSSION DOCUMENT (Annex 1):

Proposed guidance on the application of global core disclosure metrics

Questions asked:						
<ul style="list-style-type: none"> <li>Do you agree with the proposed guidance?</li> <li>Is the metric useful for reporting and management?</li> <li>Is the metric useful for the business model, improving its corporate strategy, its value proposition, or can it guide the development of innovative projects?</li> <li>Is it within the company's capabilities to measure it?</li> </ul>						
Driver of nature change	Metric no.	Core global indicator	Core global metric	Proposed guidance for the sector	Source	Response
Land/freshwater/ ocean-use change	C1.0	Total spatial footprint	<p>Total spatial footprint (km<sup>2</sup>) (sum of):</p> <ul style="list-style-type: none"> <li>Total surface area controlled/managed by the organisation, where the organisation has control (km<sup>2</sup>);</li> <li>Total disturbed area (km<sup>2</sup>); and</li> <li>Total rehabilitated/restored area (km<sup>2</sup>).</li> </ul>	<p>In reporting the core global disclosure metric, the organisation should include:</p> <ul style="list-style-type: none"> <li>Area that is owned, leased and/or operated (e.g. rights-of-way, easements, and area concessions) in the exploration, production (drilling, completion or fracturing), decommissioning phases, as well as recently decommissioned sites or sites being restored.</li> </ul>	<p>SASB – ENSV-106a.1 SASB – EMMD-106a.3</p>	<p>The restored area must subtract from the total spatial footprint.</p> <p>More detail should be provided on disturbed area.</p> <p>Within the total spatial footprint, only the area that has been transformed or intervened (construction, forestry use, etc.) by the operation (project) in a period of time should be added. If it maintains its vocation and natural coverage, it should not be added.</p> <p>The indicator must be positive if the total of the restored areas are greater than the transformed areas.</p> <p>Changes in land use by third parties cannot be included.</p>
Pollution/pollution removal	C2.1	Wastewater discharged	<p>Volume of water discharged (m<sup>3</sup>), split into:</p> <ul style="list-style-type: none"> <li>Total;</li> <li>Freshwater; and</li> <li>Other.</li> </ul> <p>Including:</p> <ul style="list-style-type: none"> <li>Concentrations of key pollutants in the wastewater discharged, by type of pollutant, referring to sector-specific guidance for types of pollutants; and</li> <li>Temperature of water discharged, where relevant.</li> </ul>	<p>In reporting the core global disclosure metric, the organisation should include:</p> <ul style="list-style-type: none"> <li>The volume of produced water and flowback generated.</li> </ul> <p>This should be broken down by percentage:</p> <ul style="list-style-type: none"> <li>Discharged;</li> <li>Injected; and</li> <li>Recycled.</li> </ul> <p>Pollutants to report under the core global disclosure metric include:</p> <ul style="list-style-type: none"> <li>Hydrocarbons in both produced water and process wastewater (mg/litre); and</li> <li>Chemical additives, metals, naturally occurring radioactive material (NORM) and salts.</li> </ul>	<p>GRI – Oil and gas; SASB – Oil and gas</p>	<p>It is valuable to report only volumes, not contaminants.</p> <p>There must be clearer criteria that define which contaminants should be reported as well as unify the information between operations. As written it cannot be reported.</p>
	C2.2	Waste generation and disposal	<p>Weight of hazardous and non-hazardous waste generated by type (tonnes), referring to sector-specific guidance for types of waste.</p> <p>Weight of hazardous and non-hazardous waste (tonnes) disposed of, split into:</p> <ul style="list-style-type: none"> <li>Waste incinerated (with and without energy recovery);</li> <li>Waste sent to landfill; and</li> <li>Other disposal methods.</li> </ul> <p>Weight of hazardous and non-hazardous waste (tonnes) diverted from landfill, split into waste:</p> <ul style="list-style-type: none"> <li>Reused;</li> <li>Recycled; and</li> <li>Other recovery operations.</li> </ul>	<p>In reporting the core global disclosure metric, the organisation should include a breakdown by:</p> <ul style="list-style-type: none"> <li>Drilling waste (muds and cuttings);</li> <li>Scale and sludges; and</li> <li>Tailings.</li> </ul>	<p>GRI Oil and Gas 906-3</p>	NR
	C2.4	Non-GHG air pollutants	<p>Non-GHG air pollutants (tonnes) by type:</p> <ul style="list-style-type: none"> <li>Particulate matter (PM<sub>2.5</sub> and/or PM<sub>10</sub>);</li> <li>Nitrogen oxides (NO<sub>2</sub>, NO and NO<sub>x</sub>);</li> <li>Volatile organic compounds (VOC or NMVOC);</li> <li>Sulphur oxides (SO<sub>2</sub>, SO, SO<sub>3</sub>, SO<sub>x</sub>); and</li> <li>Ammonia (NH<sub>3</sub>).</li> </ul>	<p>Additional pollutants to report under the core global disclosure metric include:</p> <ul style="list-style-type: none"> <li>Hazardous air pollutants (HAP), such as benzene (C<sub>6</sub>H<sub>6</sub>) and hydrogen sulphide (H<sub>2</sub>S), and ozone (O<sub>3</sub>).</li> </ul> <p>Reporting under the core global metric should include air emissions released during production and processing; refining, distribution and storage; flaring and venting; tail combustion for power generation; machinery; transportation of supplies and products; evaporation losses; fugitive emissions from equipment leaks and failures; process safety incidents and events; and fuel combustion by end-users.</p>	<p>GRI Oil and Gas</p>	<p>Companies typically only measure:</p> <ul style="list-style-type: none"> <li>Particulate matter (PM<sub>10</sub>)</li> <li>Nitrogen oxides (NO<sub>x</sub>)</li> <li>Volatile organic compounds (VOC)</li> <li>Sulfur oxides (O<sub>2</sub>, SO, SO<sub>3</sub>, SO<sub>x</sub>)</li> </ul>

Core disclosure indicators and metrics proposed for the sector						
Questions asked:						
<ul style="list-style-type: none"> <li>Is the metric useful for reporting and management?</li> <li>Is the metric useful for the business model, improving its corporate strategy, its value proposition, or can it guide the development of innovative projects?</li> <li>Is it within the company's capabilities to measure it?</li> </ul>						
Metric category	Metric subcategory	Indicator	Proposed core sector disclosure indicator or metric	Source	Response	
	Reserves in sensitive locations	The percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat.		SASB EMP-106a.3	<p>Yes it is useful but it should only be for protected areas.</p> <p>The company is able to measure it but the level of uncertainty means that the relationship between species in danger of extinction and hydrocarbon production cannot be reported.</p> <p>The limitations and challenges correspond to the exercises aimed at the identification and evaluation of habitats of critical species, corridors of umbrella species, among others, some not regulated, which can promote the life of special or interesting species. After these exercises, the linking of criteria and metrics is suggested that allow identifying existing conflicts or tensions due to dependence on existing resources in buffer areas, critical habitats and anthropogenic activities.</p> <p>It's suggested that the metric "reserves in protected areas and endangered species habitat" should be limited only to protected areas, as endangered species habitats in tropical regions may cover a wide range of areas. Additionally, it is suggested that protected areas should be limited to IUCN categories I-IV. Furthermore, it is important to clarify the concept of "near" to facilitate their use.</p>	
	Site location in protected areas or endangered species' habitat	The percentage of land owned, leased and/or operated within areas of protected conservation status or endangered species habitat.		SASB EMMD-106a.2	<p>This metric must have two types of indicators since the way of measuring both things is different (protected areas and habitats of endangered species).</p> <p>This information can be obtained from Environmental Impact Studies at the national level, only for the sites where the company operates, but it is a challenge when talking about the value chain.</p> <p>The challenge for the industry is associated with the mapping and inclusion of these metrics on the supply chain, in addition to integrating these and other complementary metrics and frameworks that allow enriching the evaluation and management of biodiversity in the country.</p> <p>This information is already provided through GRI 304-1 and 304-3. It is recommended to review the recent update of GRI 101-2024 (101-4-101-5).</p> <p>Companies propose the following alternative:</p> <ol style="list-style-type: none"> <li>Percentage of land owned, leased and/or farmed within protected areas (IUCN categories I to IV).</li> <li># of Endangered species (IUCN categories VU, EN and CR) within the area of influence of the project.</li> </ol>	

Impact driver	Land/freshwater/ocean-use change	Site location in, adjacent to protected or high value areas	Location and size of land owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas.	GRI 304	<p>It is a metric that has a high level of uncertainty and confidentiality.</p> <p>In Colombia, due to environmental licensing, companies do not operate in protected areas.</p> <p>It is considered that there is baseline information to estimate the proposed metrics. However, in protected areas, buffer zones or critical habitat areas, irregular population settlements may be identified, which could generate costs and challenges for companies or development projects; which would imply additional identification, analysis and evaluation exercises, focused on aspects of dependency, use conflicts, and economic and legal vulnerability associated with land ownership.</p> <p>Although similar to the previous metric, it could be meaningful as previous indicators do not include sites adjacent to protected areas or define some criteria to define adjacent (i.e. &gt;5 km).</p> <p>This indicator is aligned with GRI 101/101-4-101-5-101-8 and DJSI.</p> <p>It is important to provide criteria or a specific concept to define "high value" areas.</p>	
		Site location in Indigenous territories	The percentage of land owned, leased and/or operated in Indigenous territories.	TNFD	<p>The project may not have ownership of the land but can operate in Indigenous territories through agreements.</p> <p>The semantics of the metric could be evaluated as it is limited to the types of "contracts" presented. It does not even denote the relationship that companies have with Indigenous peoples.</p> <p>The metric is appropriate as it is of key relevance for management and evaluation of nature related topics. In Colombia, it is mandatory to carry out prior consultation processes when developing projects affecting Indigenous groups, although it applies across different sectors not just oil &amp; gas.</p>	
		Intensity of land/freshwater/ocean use	Average disturbed area per (1) oil and (2) gas well site (ha).	SASB EMSV-160a.1	<p>The metric can be useful but it must be clarified: How is the disturbance measured? What is disturbing?</p> <p>We are not talking about the footprint of the project but about the disturbed area. There are direct and indirect changes. You have to break it down into all the possible impacts.</p> <p>The indicator is confuse. Separation between oil wells and gas wells is impractical. Production of crude oil, gas and gas liquids covers a range of composition percentages and is not typically pure oil or pure gas. Besides, it is important to define what "disturbed" means.</p> <p>It is proposed:</p> <ol style="list-style-type: none"> <li>1. Land use prior to intervention versus area whose land use was changed by the intervention of the locations (ha).</li> <li>2. Area intervened by operation and total number of gas wells and total number of oil wells</li> </ol>	
	Pollution/pollution removal	Spills	The number and aggregate volume of hydrocarbon spills, volume affecting sensitive locations (e.g. Arctic, shorelines) and volume recovered (bbbls).	SASB EMMD-160a.4	<p>The metric can be measured.</p> <p>It is suggested for the first metric an adjustment in number of hydrocarbon spills greater than 1 barrel that have an impact on the environment (which is consistent with SASB). In addition, the data on volume recovered may be of particular relevance.</p>	
		Pipeline incidents	The number of reportable pipeline incidents and percentage that were significant.	SASB EMMD-540a.1	<p>The metric can be measured.</p> <p>The Law requires companies to report the number of redams. They have 24 hours to report the spill and how the spill was handled and closed.</p> <p>Detail whether it was due to the operation or by third parties.</p> <p>Not only pipelines (oil) but any fluid which goes in flow lines.</p> <p>Pipeline incidents are a subset of spills.</p>	
		Releases from transportation activities	The number of (1) accidental releases and (2) non-accidental releases from transportation activities.	SASB EMMD-540a.3	<p>The metric can be measured. However, the difference between accidental and non-accidental is not understood.</p> <p>The Law requires companies to report the number of redams. They have 24 hours to report the spill and how the spill was handled and closed.</p> <p>Releases from transportation activities are a subset of spills. It should be considered the origin.</p>	
	Resource use/ replenishment	Water use	The volume (m3) of potable freshwater withdrawn and consumed.	TNFD	<p>Companies already use this metric and the reused water metric. It also serves to reuse water in the company.</p> <p>Measuring this metric can reduce costs unlike if it were not measured, and also allows greater investments in innovation and development issues such as: water recirculation in all industrial processes.</p> <p>The metric should be generalized to fresh water and not potable fresh water. The national regulations request a lot of information in this regard, so it is more robust than what is proposed by TNFD.</p> <p>The term "potable" is typically a designation from local jurisdictions. Some jurisdictions consider all freshwater as non-potable unless treated and distributed by a municipal service. In this context, it would only measure water sourced from a municipal source. Recommended replacement: "The volume (m3) of freshwater withdrawn and consumed" just for consistency, use the SBTN definition.</p>	
	State of nature	Species populations	Endangered species	Number and populations of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	GRI 11.4.5	<p>This metric would be reported if it is based on a classic biodiversity inventory (areas for characterization and monitoring), since companies have this information. But as described, the metric is not considered relevant and does not concern the company. The company would not have the capabilities to measure it, it implies greater efforts, more consultations with experts, generating a baseline and they must have a robust monitoring program.</p> <p>This metric must be shared with the government.</p> <p>There is no information on species affected by the intervention of areas, that cannot be proven. It must be the number of IUCN species or national endangered listing within the license or monitoring in the entire licensed area.</p> <p>The indicator is non-specific and the project is not likely to cause a species to become extinct.</p> <p>This information is already requested in -GRI 304-3. However, it could be redundant if the above indicator on endangered species is selected, and as proposed above if the indicator remains, we suggest or limit endangered species to categories IUCN VUL, EN and CR. In relation to the use of the STAR metric we believe it is still work in progress, and the scale may be too large in the publicly available version. A more granular scale may imply a significant cost.</p> <p>There is not a standardized way or guidance for measuring species extinction risk.</p> <p>It is proposed: Species in any threat category that are directly affected by the project (HR-and-run, or fatalities directly related to operations and contingency events).</p>
	Proposed additional sector disclosure indicators and metrics for the sector					
	Questions asked:	<ul style="list-style-type: none"> <li>• Is the metric useful for reporting and management?</li> <li>• Is the metric useful for the business model, improving its corporate strategy, its value proposition, or can it guide the development of innovative projects?</li> <li>• Is it within the company's capabilities to measure it?</li> </ul>				
Metric category	Driver of nature change	Indicator	Proposed core sector disclosure indicator or metric	Source	Response	
Land/freshwater/ocean-use change	Reserve's location in proximity to Indigenous territories	The percentage of (1) proved and (2) probable reserves in or near Indigenous land.	SASB EMEP-210a.2	<p>In Colombia, by law, companies cannot operate on Indigenous reservations.</p> <p>There is uncertainty regarding proven reserves.</p> <p>The metric could be redundant with site location in Indigenous territories.</p>		
	Operations where Indigenous Peoples are present	Number and area (km2) of operations where Indigenous Peoples are present or affected by activities of the organization.	GRI 11.17.3	<p>In Colombia, by law, companies cannot operate on Indigenous reservations.</p> <p>There is uncertainty regarding proven reserves.</p> <p>The metric could be redundant with site location in Indigenous territories.</p>		
	Land use	Location and size of land owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas.		<p>It would be necessary to define what is an area with high biodiversity value, or can each company define it under its own criteria?</p> <p>Define what it means to have operations near protected areas.</p>		
Process Safety Events	Total number of Tier 1 and Tier 2 process safety events and a breakdown of this total by business activity (e.g. exploration, development, production, closure and rehabilitation, refining, processing, transportation, storage).		GRI	This indicator is redundant as the spillage metric should include process safety incidents that have an impact on the environment.		
	The Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1).		SASB EMEP-540a.1	<p>The indicator is not clear. Reporting is not recommended.</p> <p>This indicator is redundant as the spillage metric should include process safety incidents that have an impact on the environment.</p>		
	The Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of lesser consequence (Tier 2).		SASB EMRM-540a.1	<p>The indicator is not clear. Reporting is not recommended.</p> <p>This indicator is redundant as the spillage metric should include process safety incidents that have an impact on the environment.</p>		

3	Impact driver	Pollution/pollution removal	Decommissioned structures	Number of decommissioned structures left in place and rationales for leaving them in place.	GRI 11.7.5	It's proposed a metric related to environmental legacies could be meaningful. In accordance with national legislation, the area must be kept free of waste or elements that could cause contamination.		
			Hydraulic fracturing fluid	Volume of hydraulic fracturing fluid used and percentage considered hazardous (for organisations performing hydraulic fracturing activities).	SASB EMSV-150a.1	This metric does not apply to Colombia. There are no licensed companies with hydraulic fracturing or horizontal drilling. It depends on the fluid. There are two elements in the metric that should be measured differently.		
			Non-GHG air pollution	Emissions of each air pollutant by region and/or business activity (tonnes).	IPIECA	It is not clear if they are GHG emissions and not GHG scope 1 and 2. It is redundant with C.2.4 (core metrics).		
			Water pollution	Share of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline (%).	SASB	It is a metric that is reported to the Environmental Authority since hydraulic fracturing is not permitted. For the report, it should be taken into account that these incidents can occur due to other types of nearby illegal activities, such as, for example, illegal mining or coca production.		
				Number of incidents of non-compliance associated with water quality permits, standards and regulations. Typical parameters of concern include hydrocarbons (including oil and grease), chemical oxygen demand (COD), biochemical oxygen demand (BOD), sulphides, ammonia, phenols, total suspended solids (TSS) and total dissolved solids (TDS).	SASB	It is a metric that is normally reported to the Environmental Authority. For the report, it should be taken into account that these incidents can occur due to other types of nearby legal activities (agriculture, supply to populations, industries, etc.) or illegal activities (illegal mining or coca production). It is recommended to complement the indicator with information on the water management approach, so that the reader (or stakeholders) is not left with only the numerical data. Numerical data alone does not represent the full picture of the company's management of the resource. Validate whether the dependency, which is associated with the receiving water body, should be taken into account as well as the discharge. The legal implications of reporting this metric should be assessed.		
				Volume of produced water and process wastewater discharged (m3).	GRI	Yeah. It is a metric that is permanently measured, so it is easy and important to report. It is redundant with C2.1 (core metrics). It does not provide material additional information. It is not meaningful.		
				Concentration of hydrocarbons discharged in produced water and process wastewater (mg/l).	GRI	This metric will always yield a zero value in Colombia because companies treat and reject water and avoid wastewater in their process. What is discharged cannot be contaminated because the Environmental Authority requests it. It is redundant with C2.1 (core metrics). Besides, it is confuse because there are not oil discharges in produced water. It is proposed: Hydrocarbon concentration (mg/l) in the discharge and receiving body. Hydrocarbon concentration (mg/l) in the formation water versus Hydrocarbon concentration (mg/l) in the water to be injected for final disposal.		
			Soil/water pollution	List of significant spill events and the cause of each spill event.	GRI	It can be measured, but to facilitate its use it is suggested to define "significant".		
			Waste	Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally (tonnes).	GRI EN24	In Colombia, waste is not exported or imported. Although C 2.2 (core metrics) includes weights of different types of hazardous waste, it does not cover international transport of waste under Basel convention, this is believed meaningful.		
				(1) Number of underground storage tanks (USTs), (2) number of UST releases requiring cleanup and (3) percentage in states with UST financial assurance funds.	SASB	Storage of what? Fluid or oil? Currently, fugitive emissions in the tanks are not measured. It could be meaningful as C2 (core metrics) does not cover specifically UST. This may be relevant for financial investors.		
				The composition of the waste diverted from disposal broken down by, if applicable: • Drilling waste (muds and cuttings); • Scale and sludges; and • Tailings.	GRI Sector standard	It is suggested that a guidance on C2.2 (core metrics) may include to consider these specific metrics.		
			Resource user/replenishment	Water use	Volume of produced water and flowback generated (m3), including a breakdown with the proportions discharged, injected and recycled (%).	SASB	NR	
			Invasive alien species introduction/removal	Removal of invasive species	Number of invasive species removal programmes underway and volume. Share of invasive species removed (%).	TNFD	This metric has been part of the companies' proposal but the Environmental Authority, by not approving it in its compensation plans, makes the metric unviable. Could be number of operational sites which have recorded an IAS. % of species removed is not realistic. Criteria or guidelines are needed to delimit the presence of invasive species in relation to the company's activities.	
			State of nature	Ecosystem condition	State of water bodies	Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's withdrawal and discharges of water and runoff.	SASB GRI EN25	This metric is useful, companies have this information since it is part of what is reported within the framework of the environmental license. It is not meaningful until CS.O state of nature indicators are developed. It would be pertinent to review the need to standardise how the value of biodiversity is determined. In addition, it is not clear what is meant by "identity". It is necessary to take into account the development of metrics related with state of nature. It is proposed: Hydrobiological diversity (hydrobiological communities) in lentic and lotic water bodies in the area of influence of the project.
			Response	Impact management	Inspection of infrastructure	Percentage of (1) natural gas and (2) hazardous liquid pipelines inspected, by type of inspection (internal or external).	SASB EMMD-540a.2	C2 includes a comprehensive set of pollution disclosure metrics. This metric should be part of safety disclosure, not nature disclosure.
Offsets	Biodiversity of offset habitats compared to the biodiversity of the affected areas.	GRI EU 13			It is useful, companies have the information and it is included in their compensation obligations and in the voluntary biodiversity programs of several companies. Further clarification of suggested metrics to be used is required. It is suggested to standardise comparable biodiversity metrics between offset and non-offset areas. Long-term monitoring costs can be significant and do not necessarily reflect the cause-effect relationship between industry activities and their impacts.			
<b>OTHER GENERAL QUESTIONS ABOUT METRICS</b>								
What other industry metrics should the taskforce consider? Should they be core or additional?	<p>Areas affected by coverage in the year and alteration or impact on bodies of water.</p> <p>A metric could be generated regarding the type of relationship that companies maintain with indigenous peoples and environmental citizen participation actions.</p> <p>It is recommended that indicators and metrics associated with the impact generator be included that allow identifying the change in land use from the analysis of anthropogenic activities with two orientations:</p> <ol style="list-style-type: none"> <li>1. Level of conflict in pre-existing land use (based on coverage) and potential, supported by its agrological classification;</li> <li>2. Relationship of population occupation of land.</li> </ol> <p>It is recommended that the indicators and metrics be complemented with quantitative and qualitative indicators that allow the identification of socioeconomic parameters; for example, development of artisanal or subsistence economic activities that advance to protected areas or areas of interest for habitats of critical species.</p> <p>If the linking of metrics associated with compensation to populations as possible recipients of the impact is considered appropriate, it would be necessary to carry out additional exercises that allow identifying levels of dependence on the benefits provided and the types of ecosystem services of which the population makes use.</p> <p>There are no indicators related to environmental liabilities.</p>							
What other metrics of positive impact and opportunities? Are they relevant in each sector?	<p>Those that are related to water footprint.</p> <p>A metric could be generated regarding the type of relationship that companies maintain with indigenous peoples and environmental citizen participation actions. Metrics should be created that reflect the effort that companies have made around this issue.</p> <p>There are very large contributions to biodiversity, for example in relation to connectivity or protection of flagship species, avoiding human-fauna conflict, etc. At the moment they should not be core metrics or additional, but rather the company should report how it measures its positive impacts since not all of them generate the same ones. Many have their own and different strategies.</p>							
<b>ADDITIONAL CONTRIBUTIONS AND COMMENTS</b>								

The Core Global Metrics capture the main material impacts, however, they do not necessarily capture dependencies. Also, it is not clear how to articulate global core metrics to an assessment of the state of an ecosystem where a company operates. Also, there is a lack of clarity around temporality to assess positive/negative changes over time.

Many variables can be highly qualitative, requiring further development to understand them and make comparable reports between companies, countries, etc. e.g. "near", "significant spills", among others.

For regulated sectors like oil&gas, several of these metrics are already part of reports in direct operation. There are many challenges however in extending some of these metrics to the supply chain.

The territorial context in which the company is located includes other socioeconomic activities that may be affecting the state of resources and biodiversity. With this in mind it would be important to provide guidance on how the impacts of the company's activities could be discriminated from those of other activities in the area. This issue is especially relevant for the design of all metrics and the interpretation of assessment results.

It is key that the metrics are clear and defined, as they are open to interpretation. This would make them depend on each operation.

Realities of the territory go far beyond the analysis for the company, we must consider the impact that other (illegal) industries have on values.

The sub-industries of the sector should not be extrapolated. Not everyone can have the same targets.