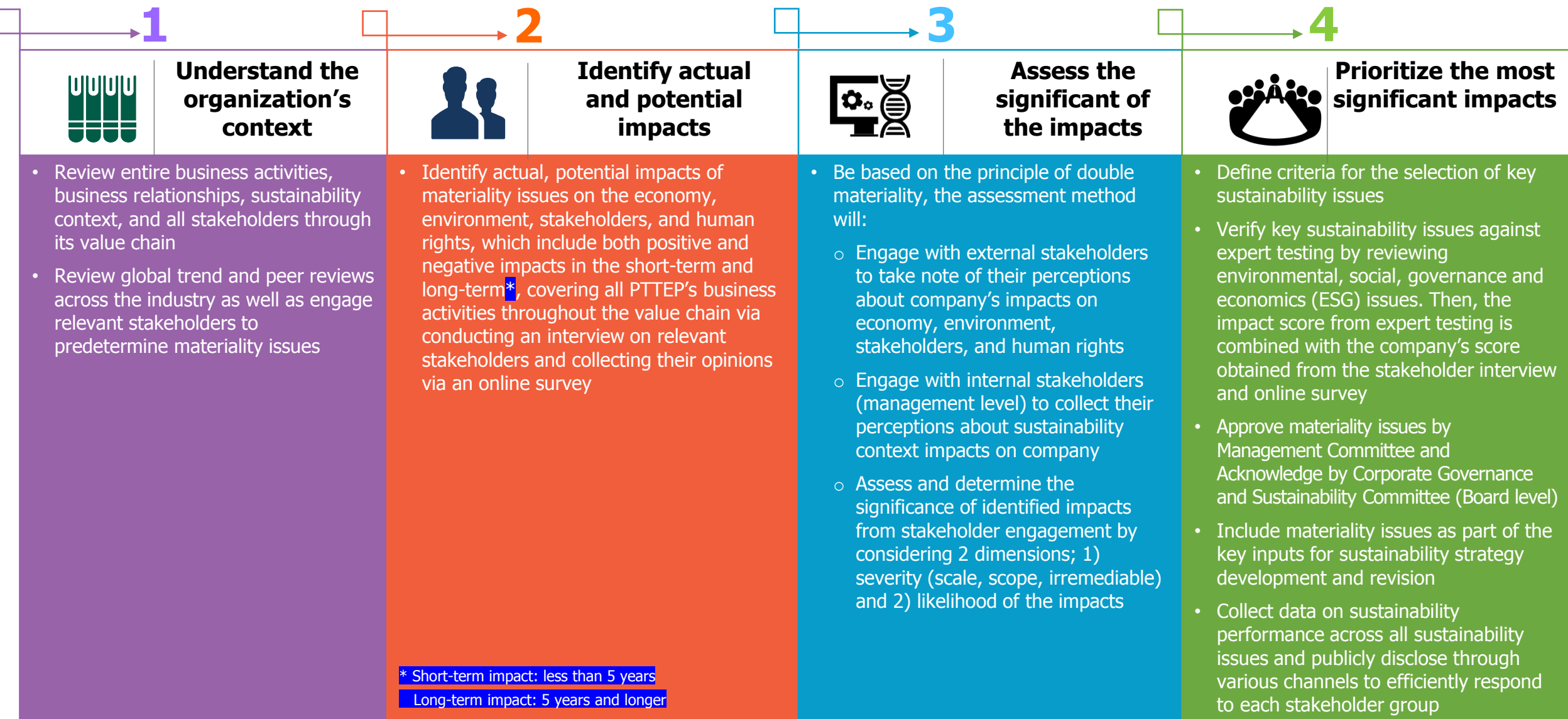


# 2023

## PTTEP Materiality Assessment Result



# PTTEP Materiality Assessment Process

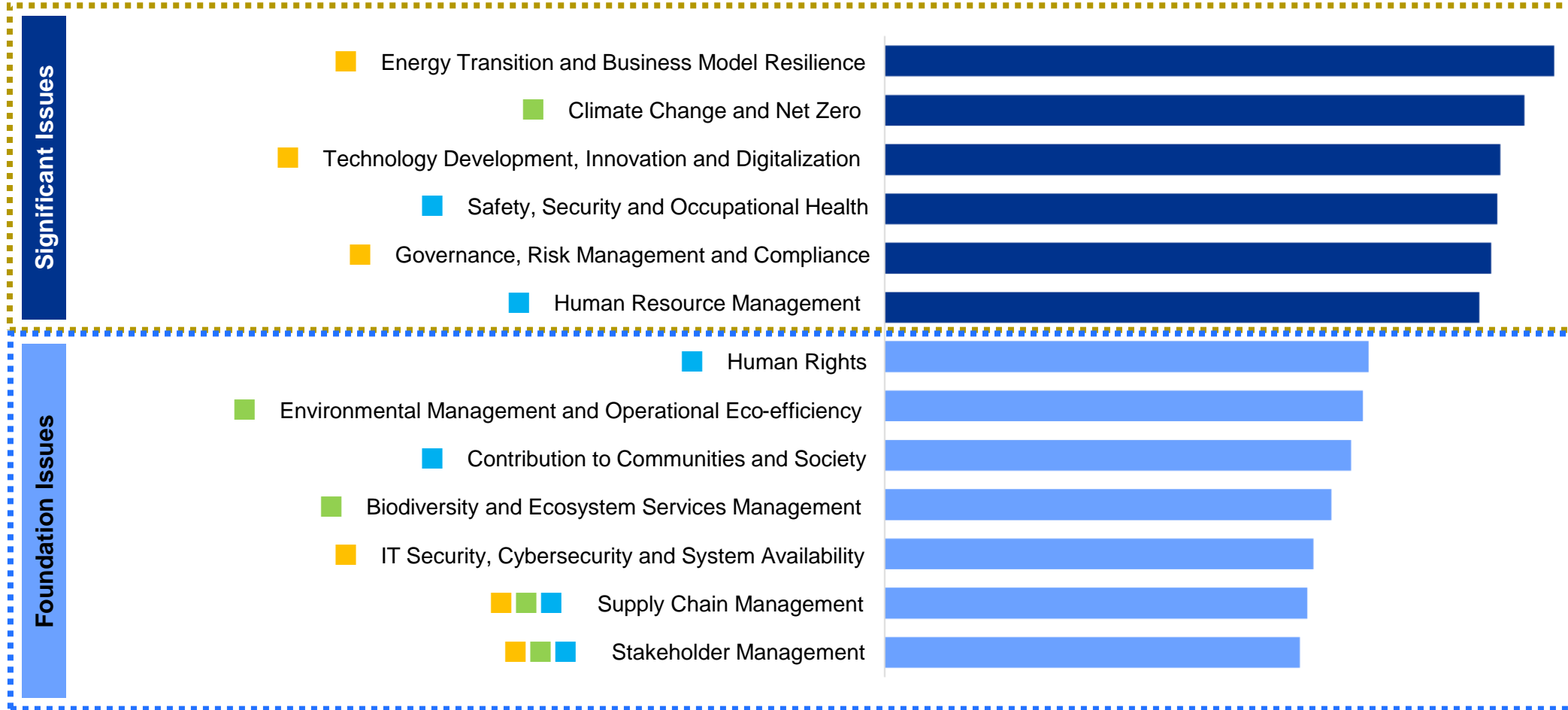


\* Short-term impact: less than 5 years  
 Long-term impact: 5 years and longer

**Remark:**

- Materiality assessment process verified by third-party assurance provider
- Materiality Analysis conducted/reviewed at least annually

# 2023 Materiality Issues



■ Governance and Economic Dimension    
 ■ Environmental Dimension    
 ■ Social Dimension

# 2023 Materiality Assessment Result

## 1. Energy Transition and Business Model Resilience

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Enhance business resilience and competitiveness [S/L]</li> <li>Ensure national energy security [S/L]</li> <li>Mitigate immediate/ long-term impact of crises [S/L]</li> <li>Proactively manage stakeholder expectations [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 18, 24, 25 and 27</li> </ul>	<ul style="list-style-type: none"> <li>Direct</li> <li>7 AFFORDABLE AND CLEAN ENERGY</li> <li>8 DECENT WORK AND ECONOMIC GROWTH</li> <li>9 INDUSTRY INNOVATION AND INFRASTRUCTURE</li> <li>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</li> <li>13 CLIMATE ACTION</li> </ul>	High	High	High	<ul style="list-style-type: none"> <li>Net Income</li> <li>Unit Cost</li> <li>Reserves to Production Ratio (R/P)</li> </ul>	<ul style="list-style-type: none"> <li>5% Average Production Growth (CAGR)</li> </ul>	2030	<ul style="list-style-type: none"> <li>Total Revenue</li> <li>Total Operating Profit</li> </ul>	<ul style="list-style-type: none"> <li>% Increase of Operating Profit</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Experience an escalation of costs in the national energy sector [S/L]</li> <li>High risk in E&amp;P business due to energy disruption [S/L]</li> <li>Less competitiveness in energy sector [L]</li> <li>Lose stakeholder trust [S/L]</li> </ul>									<ul style="list-style-type: none"> <li>Maintain Competitive Unit Cost for E&amp;P</li> </ul>	2030	<ul style="list-style-type: none"> <li>Finding and Development cost</li> <li>Production Cost</li> </ul>	
	<ul style="list-style-type: none"> <li>Maintain Reserves to Production Ratio (R/P) &gt;5 Years</li> </ul>	2040	<ul style="list-style-type: none"> <li>Hydrocarbon Proved Reserve (1P)</li> <li>Hydrocarbon Production</li> </ul>									

# 2023 Materiality Assessment Result

## 2. Climate Change and Net Zero

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Proactively manage stakeholder expectations [S/L]</li> <li>Support national target and agenda including UNSDGs</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 18, 24, 25 and 27</li> </ul>	<ul style="list-style-type: none"> <li>Direct</li> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>Indirect</li> <li></li> </ul>	Medium	High	High	<ul style="list-style-type: none"> <li>GHG Management</li> </ul>	<ul style="list-style-type: none"> <li>30% GHG Intensity Reduction</li> </ul>	2030	<ul style="list-style-type: none"> <li>GHG Emissions</li> </ul>	<ul style="list-style-type: none"> <li>% Decrease of GHG Emissions</li> <li>Social Cost of Carbon</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Less competitiveness in energy sector [L]</li> <li>Lose stakeholder trust [S/L]</li> <li>Face a delay in net zero commitment achievement [L]</li> </ul>									<ul style="list-style-type: none"> <li>50% GHG Intensity Reduction</li> </ul>	2040		
	<ul style="list-style-type: none"> <li>Net Zero GHG Emissions</li> </ul>	2050										
	<ul style="list-style-type: none"> <li>&gt; 250,000 rai of land forest conserved and restored</li> </ul>		<ul style="list-style-type: none"> <li>Number of rai of land</li> </ul>	<ul style="list-style-type: none"> <li>Carbon credit</li> </ul>								






# 2023 Materiality Assessment Result

## 3. Technology Development, Innovation and Digitalization

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>• Create new business opportunities and generate more revenue [S/L]</li> <li>• Increase E&amp;P efficiency improvement with lower cost [S/L]</li> <li>• Strengthen stakeholder trust [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>• Operations</li> <li>• Products and Services</li> </ul>	<ul style="list-style-type: none"> <li>• Government Agencies and Regulators</li> <li>• Suppliers / Contractors</li> <li>• Customers</li> <li>• Employees and Directors</li> <li>• Shareholders, and Financial Institutions</li> <li>• Business Partners and Joint Ventures</li> <li>• Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>• Right No. 24, 25, 27 and 30</li> </ul>	<ul style="list-style-type: none"> <li>• Direct</li> </ul>	High	High	High	<ul style="list-style-type: none"> <li>• Diversify to Beyond E&amp;P</li> </ul>	<ul style="list-style-type: none"> <li>• Allocate 10% of PTTEP's total capital expenditure (CAPEX) budget for transition business</li> </ul>	2030	<ul style="list-style-type: none"> <li>• Total Revenue</li> <li>• Budget for Technology Research and Development</li> <li>• Number of Projects for Technology Research and Development</li> <li>• Number of Intellectual Property Registrations</li> </ul>	<ul style="list-style-type: none"> <li>• % Increase of Total Revenue</li> <li>• % Increase of Operating Profit</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>• Lose of competitiveness in</li> <li>• E&amp;P [S/L]</li> <li>• Delay new business opportunities [S/L]</li> <li>• Lose stakeholder trust [S/L]</li> </ul>				<ul style="list-style-type: none"> <li>• Indirect</li> </ul>	High	High						


# 2023 Materiality Assessment Result

## 4. Safety, Security, Health and Environment

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Enhance safety culture [S/L]</li> <li>Improve employee morale and productivity [S]</li> <li>Better SSHE performance</li> <li>Reduce cost due to lower incidents and work-related illnesses [S]</li> <li>Enhance operation efficiency from regulations and industry standards compliance [S/L]</li> <li>Increase reputation and stakeholder trust [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No.1, 2, 4, 23, 25, 28, 32 and 34</li> </ul>	<ul style="list-style-type: none"> <li>Direct                             <ul style="list-style-type: none"> <li></li> <li></li> <li></li> <li></li> </ul> </li> <li>Indirect                             <ul style="list-style-type: none"> <li></li> </ul> </li> </ul>	Medium	High	High	LTIF	<ul style="list-style-type: none"> <li>Became a Zero Incident Organization (Target Zero)</li> <li>Maintain Personal Safety of All Employees and Suppliers/ Contractors and Process Safety of All Facilities</li> <li>Minimize Env. Footprints from Operational Activities</li> </ul>	Continuous Improvement with Automation	<ul style="list-style-type: none"> <li>LTIF</li> <li>TRIR</li> <li>Number of Process Safety Events</li> <li>Loss of Primary Containment</li> </ul>	% Decrease of Incidents
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Increase SSHE risks [S/L]</li> <li>Encounter decreased employee morale and productivity [S]</li> <li>Suffer an increased financial loss caused by accidents, disruptions and absenteeism [S]</li> <li>Experience a deterioration in reputation and stakeholder trust [S/L]</li> </ul>									<ul style="list-style-type: none"> <li>Energy Consumption</li> <li>Air Emissions</li> <li>Spills</li> <li>Water Withdrawal, Consumption and Discharge</li> </ul>			

# 2023 Materiality Assessment Result

## 5. Governance, Risk Management and Compliance

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Enhance business confidence and public acceptance [S/L]</li> <li>Well manage crisis situations [S/L]</li> <li>Prevent reputation damage and gain stakeholder trust from transparency operation [S/L]</li> <li>Effective management for all PTTEP operations and for those conducted by subsidiaries, business partners, and suppliers [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 3, 5, 6, 7, 9 and 10</li> </ul>	<ul style="list-style-type: none"> <li>Direct</li> </ul> 	Medium	High	High	Monetize Discovery (Asset Transition)	<ul style="list-style-type: none"> <li>Become GRC Role Model among Thai Listed Companies</li> <li>Increase GRC Maturity Level to the Highest Level</li> <li>Achieve Zero non-Compliance and Zero Corruption</li> </ul>	2030	<ul style="list-style-type: none"> <li>Number of Wrongdoing Case</li> <li>Number of Compliance with Laws and Regulations in the Social and Economic Area Case</li> </ul>	<ul style="list-style-type: none"> <li>% Decrease of Non-compliance/ Wrongdoing Cases</li> <li>GRC Maturity Score Increasing</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Lose stakeholder trust caused by reputation damage from poor practice [S/L]</li> <li>High potential for financial loss caused by fraud, non-compliance fines, operational disruptions, and inefficient resource [S/L]</li> <li>Unable to deliver products and reserve as planned</li> </ul>												







# 2023 Materiality Assessment Result

## 6. Human Resource Management

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) S: Short-Term, L: Long-Term	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Enhance readiness of PTTEP staff for future challenge &amp; new business [S]</li> <li>Enhance employee performance, talent retention and succession planning [S/L]</li> <li>Gain positive organizational culture, employee development and growth [S/L]</li> </ul>	Operations	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 6, 21, 23, 25, 26 and 29</li> </ul>	<ul style="list-style-type: none"> <li>Direct</li> </ul>  <ul style="list-style-type: none"> <li>Indirect</li> </ul>  	Medium	High	High	-	<ul style="list-style-type: none"> <li>Human Capital Return on Investment (HCROI)</li> <li>Improvement of employee engagement score</li> <li>Turnover Rate</li> <li>Employee Engagement Score and Participation</li> <li>Women in Workforce (Gender Diversity)</li> </ul>	Continuous Improvement with Automation	<ul style="list-style-type: none"> <li>Avg. All Employees of Training and Development</li> <li>HCROI</li> <li>Employee Engagement Score</li> <li>Employee Engagement Participant</li> <li>Turnover Rate</li> <li>Gender Diversity and Remuneration</li> </ul>	<ul style="list-style-type: none"> <li>% Increase of HCROI</li> <li>% Increase of Employee Engagement Score</li> <li>% Decrease of Turnover Rate</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Experience decreased employee performance and productivity [S/L]</li> <li>Suffer a higher turnover rate [S/L]</li> <li>Face difficulty in adapting to change of PTTEP staff [S/L]</li> <li>Ineffective management to support growth in E&amp;P business and beyond E&amp;P [S/L]</li> </ul>												

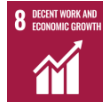






# 2023 Materiality Assessment Result

## 7. Human Rights

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p>Positive (+)</p> <ul style="list-style-type: none"> <li>Prevent disruptions to business operations [S/L]</li> <li>Maintain positive relationships with the government, communities and other key stakeholders [S/L]</li> <li>Recruit and retain employees and top talents [S/L]</li> <li>Enhance company reputation [S/L]</li> </ul> <p>Negative (-)</p> <ul style="list-style-type: none"> <li>Lose a license to operate [S/L]</li> <li>Experience a reputation damage, resulting in boycotts by stakeholders of the countries where we operate, etc. [S/L]</li> <li>Fail to retain top talents [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34 and 35</li> </ul>	<ul style="list-style-type: none"> <li>Direct                             <ul style="list-style-type: none"> <li></li> </ul> </li> <li>Indirect                             <ul style="list-style-type: none"> <li></li> <li></li> <li></li> </ul> </li> </ul>	Medium	Medium	Medium	-	No Human Rights Violation from Direct Operational Activities	Continuous Improvement with Automation	<ul style="list-style-type: none"> <li>% Coverage of Human Rights Risk Assessment</li> <li>% of Risk with Mitigation Or Remediation Process Implemented</li> <li>Number of Human Rights Violation Case</li> </ul>	Cost of Business Damage Caused by Human Rights Violation









# 2023 Materiality Assessment Result

## 8. Environmental Management and Operational Eco-efficiency

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p>Positive (+)</p> <ul style="list-style-type: none"> <li>Reduce cost due to lower incidents and work-related illnesses [S]</li> <li>Enhance operation efficiency from regulations and industry standards compliance [S/L]</li> <li>Enhance cost savings [S]</li> <li>Reduce resource use [S/L]</li> <li>Minimize environmental footprint [S/L]</li> <li>Increase reputation and stakeholder trust [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No.1, 2, 4, 23, 25, 28, 32 and 34</li> </ul>	<ul style="list-style-type: none"> <li>Direct                             <ul style="list-style-type: none"> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> </ul> </li> <li>Indirect                             <ul style="list-style-type: none"> <li></li> </ul> </li> </ul>	Low	Medium	Medium	-	<ul style="list-style-type: none"> <li>Minimize Env. Footprints from Operational Activities</li> </ul>	Continuous Improvement with Automation	<ul style="list-style-type: none"> <li>Energy Consumption</li> <li>Air Emissions</li> <li>Spills</li> <li>Water Withdrawal,</li> <li>Consumption and Discharge</li> </ul>	<ul style="list-style-type: none"> <li>% Decrease of Incidents</li> </ul>
<p>Negative (-)</p> <ul style="list-style-type: none"> <li>Suffer an increased financial loss caused by accidents, disruptions and absenteeism [S]</li> <li>Generate more waste and cause high cost to disposal [S/L]</li> <li>Experience a deterioration in reputation and stakeholder trust [S/L]</li> </ul>									2030	<ul style="list-style-type: none"> <li>&gt; 50% Main Structures Reused</li> <li>Zero Waste to Landfill</li> <li>Zero Oil and Chemical Spill</li> </ul>	<ul style="list-style-type: none"> <li>Total Waste Generated</li> <li>Waste Disposed and Recycled</li> </ul>	<ul style="list-style-type: none"> <li>% Decrease of Total Waste Generated</li> <li>% Increase Reused and Recycled Waste</li> <li>Decrease Disposed Waste to Landfill</li> <li>Social Cost of Waste</li> </ul>





# 2023 Materiality Assessment Result

## 9. Contribution to Communities and Society

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Gain a license to operate from communities' trust and good relationship through the social initiative programs [S/L]</li> <li>Improve community quality of life [S/L]</li> <li>Sustain and restore natural resources [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 8, 27, 28, 29 and 35</li> </ul>	<p>• Direct</p>     	Medium	Medium	Medium	-	2030	<ul style="list-style-type: none"> <li>Total Contribution</li> <li>Number of PTTEP's Social Development Projects and Community Participation</li> </ul>	<ul style="list-style-type: none"> <li>% Increase Community Income</li> <li>Number of Participants through Initiatives of the Social Programs</li> </ul>	
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Lose a license to operate and community trust [S/L]</li> <li>Face a decline in community quality of life [S/L]</li> <li>Encounter a declined responsibility towards environmental practices [S/L]</li> </ul>												<p>• Indirect</p>   

# 2023 Materiality Assessment Result

## 10. Biodiversity and Ecosystem Services Management

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Sustain and restore natural resources and biodiversity and ecosystem services (BES) [S/L]</li> <li>Improve community and Society quality of life [S/L]</li> <li>Minimize biodiversity impacts from operations [S/L]</li> <li>Increase reputation and stakeholder trust [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> <li>Products and Services</li> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 27, 28 and 31</li> </ul>	<ul style="list-style-type: none"> <li>Direct</li> </ul>    	Medium	Medium	Medium	-	<ul style="list-style-type: none"> <li>No Gross Deforestation for E&amp;P</li> </ul>	2021 Onwards	<ul style="list-style-type: none"> <li>Number of E&amp;P Site Complied with No Gross Deforestation</li> </ul>	<ul style="list-style-type: none"> <li>% Loss of Productive and Habitat Land</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Lose biodiversity and ecosystem services including habitat areas (BES) [S/L]</li> <li>Decrease cultural and socioeconomic benefits of communities [S/L]</li> <li>Suffer an increased financial loss caused by remedy from biodiversity impacts [S/L]</li> <li>Put in higher investment budget through the BES programs [S/L]</li> </ul>									<ul style="list-style-type: none"> <li>&gt; 250,000 rai of land forest conserved and restored</li> </ul>		<ul style="list-style-type: none"> <li>Number of rai of land</li> </ul>	<ul style="list-style-type: none"> <li>Carbon credit</li> </ul>
									<ul style="list-style-type: none"> <li>Achieve Net Positive Impact on Ocean BES Value for Offshore Operations</li> </ul>	2030	<ul style="list-style-type: none"> <li>% Progress of Ocean BES NPI for Offshore Operation</li> </ul>	
									<ul style="list-style-type: none"> <li>Avoid Operating in World Heritage Sites as Defined by UNESCO</li> <li>No Net Loss of Biodiversity in Category IIV</li> <li>Protected Areas as Defined by IUCN</li> </ul>	2044	<ul style="list-style-type: none"> <li>Total Number Sites and Areas Conducted Biodiversity Impact Assessments</li> <li>Total Number of Sites and Areas Close to Critical Biodiversity</li> </ul>	






# 2023 Materiality Assessment Result

## 11. IT Security, Cybersecurity and System Availability

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Prevent loss and damage from cybersecurity threats [S/L]</li> <li>Protect data privacy [S/L]</li> <li>Enhance IT efficiency and minimize incidents [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Operations</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 11</li> </ul>	<ul style="list-style-type: none"> <li>Direct</li> </ul>   	Low	Medium	Medium	-	No Loss and Damage From Cyber Attack	Continuous Improvement with Automation	<ul style="list-style-type: none"> <li>Number of Information Security Breach</li> <li>Number of Information Security/ Cybersecurity Incident Response Testing</li> <li>% Coverage of IT Infrastructure Certified by ISO 27001</li> </ul>	Cost of Business Damage Caused by Cyber Attack
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Suffer a decrease in confidence, reputation and stakeholder trust from cyber attack and data leakage [S/L]</li> <li>Experience an increase in financial loss caused by incidents of cyber attack and data leakage [S]</li> </ul>												



# 2023 Materiality Assessment Result

## 12. Supply Chain Management

Materiality Issues Impact on Environmental and Social						Financial Materiality	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Materiality Level	Financial Materiality Level	Double Materiality Level					
<p><b>Positive (+)</b></p> <ul style="list-style-type: none"> <li>Enhance cost savings [S/L]</li> <li>Reduce resource use [S/L]</li> <li>Effectively mitigate impact affected to company supply chain [S/L]</li> <li>Promote local community's jobs and economy through local content allocation [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>Government Agencies and Regulators</li> <li>Suppliers / Contractors</li> <li>Customers</li> <li>Employees and Directors</li> <li>Shareholders, and Financial Institutions</li> <li>Business Partners and Joint Ventures</li> <li>Communities and Society</li> </ul>	<ul style="list-style-type: none"> <li>Right No. 2, 3, 15 and 33</li> </ul>	<p>• Direct</p>    	Low	Medium	Medium	<ul style="list-style-type: none"> <li>Net Income</li> <li>Unit Cost</li> </ul>	<ul style="list-style-type: none"> <li>5% Average Production Growth (CAGR)</li> <li>Maintain Competitive Unit Cost for E&amp;P</li> </ul>	2030	<ul style="list-style-type: none"> <li>Total Revenue</li> <li>Total Operating Profit</li> <li>Finding and Development cost</li> <li>Production Cost</li> </ul>	<ul style="list-style-type: none"> <li>% Increase of Operating Profit</li> </ul>
<p><b>Negative (-)</b></p> <ul style="list-style-type: none"> <li>Receive poor quality and product defects [S/L]</li> <li>Lack flexibility and resilience in company supply chain [S/L]</li> <li>Suffer an increased cost and reduced profitability [S/L]</li> <li>Increase environmental and social impacts from excessive waste generation, high carbon emissions, and unsustainable sourcing practices [S/L]</li> </ul>				<p>• Indirect</p> 	-	Continuous Improvement with Automation	<ul style="list-style-type: none"> <li>% Coverage Supplier Risk Assessment</li> <li>% Critical and High-risk Supplier Audited</li> <li>Value of Green Procurement</li> <li>% Local Procurement</li> </ul>				<ul style="list-style-type: none"> <li>% Increase of Quality Improvement</li> </ul>	

# 2023 Materiality Assessment Result

## 13. Stakeholder Management

Materiality Issues Impact on Environmental and Social						Materiality Issues Impact on Business	Double Materiality	Corporate KPI	Long Term Target	Target Year	Output Metric 4 Year Performance	Impact Metrics
Main Impact Generated (Potential / Actual) <small>S: Short-Term, L: Long-Term</small>	Cause of the Impact	Stakeholders	Human Rights	Alignment with SDGs	Impact Level	Impact Level						
<u>Positive (+)</u> <ul style="list-style-type: none"> <li>• Lose a license to operate [S/L]</li> <li>• Enhance business efficiency through stakeholders' opinions, concerns, and expectations [S/L]</li> <li>• Promote a strong relationship from stakeholders' engagement [S/L]</li> </ul>	<ul style="list-style-type: none"> <li>• Operations</li> <li>• Products and Services</li> <li>• Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>• Government Agencies and Regulators</li> <li>• Suppliers / Contractors</li> <li>• Customers</li> <li>• Employees and Directors</li> <li>• Shareholders, and Financial Institutions</li> <li>• Business Partners and Joint Ventures</li> <li>• Communities and Society</li> <li>• Media</li> </ul>	<ul style="list-style-type: none"> <li>• Right No. 18, 24, 25 and 27</li> </ul>	<ul style="list-style-type: none"> <li>• Direct</li> </ul>  <ul style="list-style-type: none"> <li>• Indirect</li> </ul> 	Low	Medium	Medium	-	-	-	-	% Increase of Stakeholder Perception/ Engagement Score
<u>Negative (-)</u> <ul style="list-style-type: none"> <li>• Experience a delay of projects or operational activities [S/L]</li> <li>• Lack supports in PTTEP initiatives [S/L]</li> </ul>												



# 35 Human Rights

**Human Rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. – United Nations**

1. Right to life
2. Right to liberty and security
3. Right not to be subjected to slavery, servitude, or forced labour
4. Right not to be subjected to torture, cruel, inhuman, and/or degrading treatment or punishment
5. Right to recognition as a person before the law
6. Right to equality before the law, equal protection of the law, non-discrimination
7. Right to freedom from war propaganda, and freedom from incitement to racial, religious, or national hatred
8. Right to access to effective remedies
9. Right to a fair trial
10. Right to be free from retroactive criminal law
11. Right to privacy
12. Right to freedom of movement
13. Right to seek asylum from prosecution in other countries
14. Right to have a nationality
15. Right of protection for the child
16. Right to marry and form a family
17. Right to own property
18. Right to freedom of thought, conscience, and religion
19. Right to freedom of opinion, information, and expression
20. Right to freedom of assembly
21. Right to freedom of association
22. Right to participate in public life
23. Right to social security, including social insurance
24. Right to work
25. Right to enjoy just and favorable conditions of work
26. Right to form and join trade unions and the right to strike
27. Right to an adequate standard of living
28. Right to health
29. Right to education
30. Right to take part in cultural life, benefit from scientific progress, material and moral rights of authors and inventors
31. Right to self-determination
32. Right of detained persons to humane treatment
33. Right not to be subjected to imprisonment for inability to fulfill a contract
34. Right of aliens due process when facing expulsion
35. Rights of minorities

## References:

- Universal Declaration on Human Rights
- International Covenant on Civil and Political Rights
- International Covenant on Economic, Social, and Cultural Rights
- International Finance Corporation