

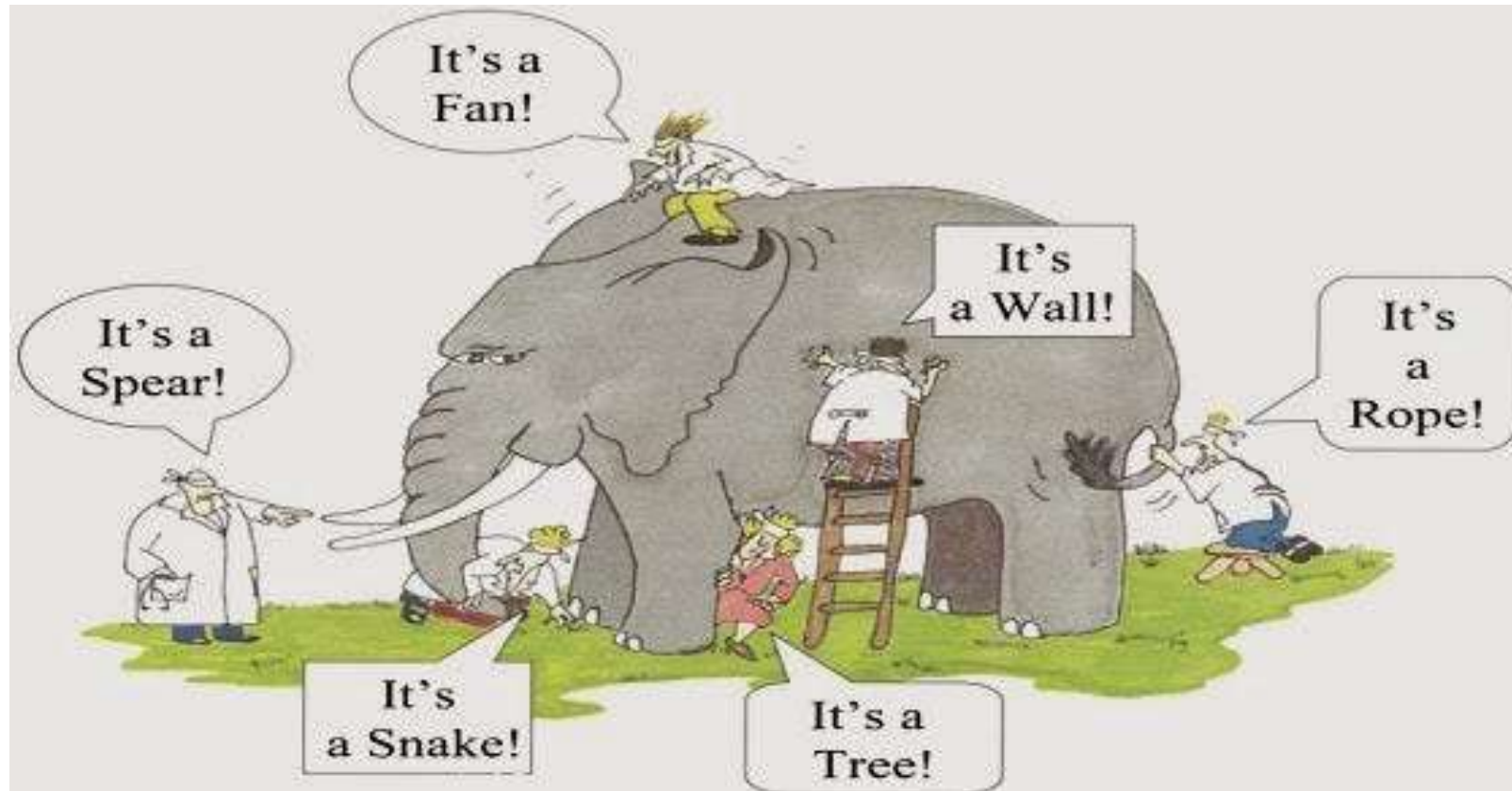
ESG- From Theory to Action for Effective Contributions with Measured Value



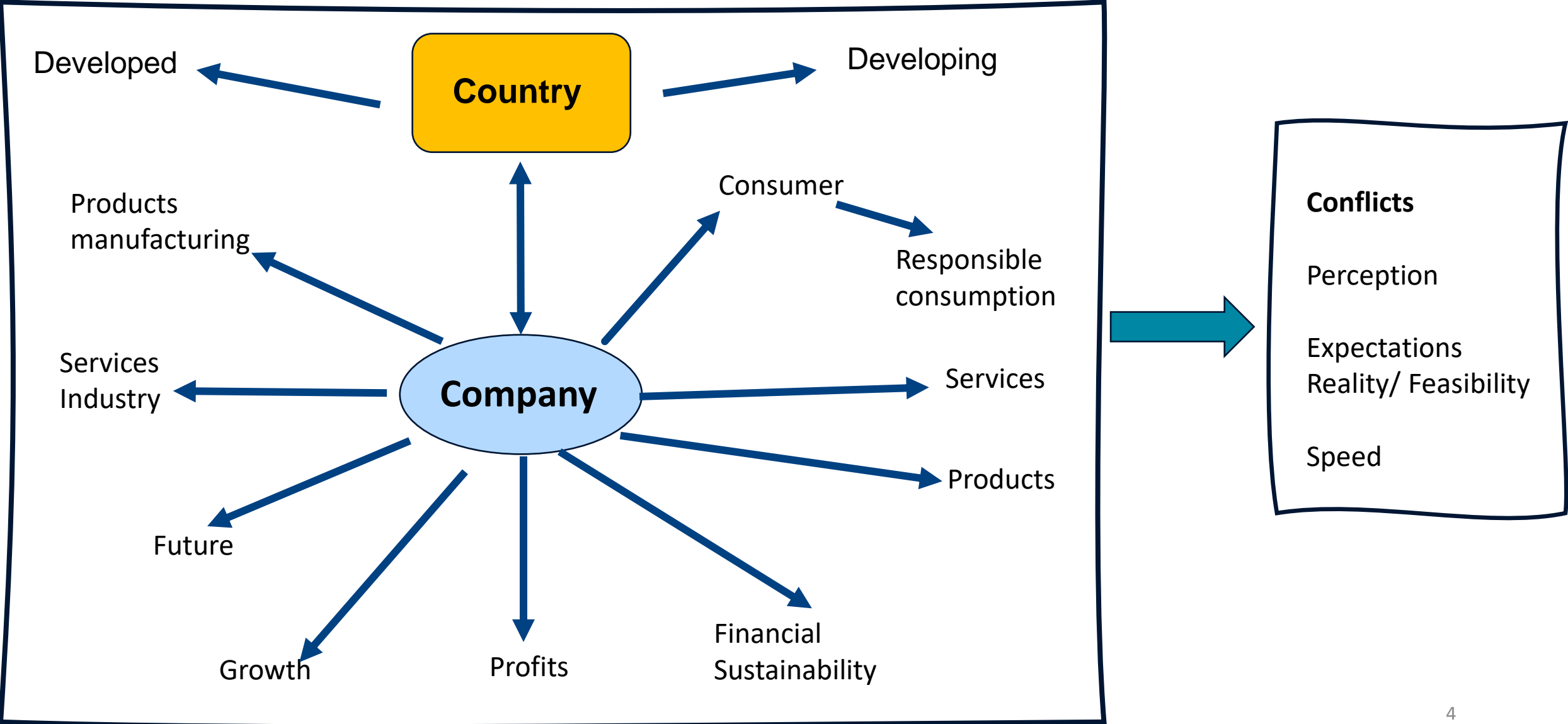
Structure of the Presentation

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Everyone Understands/ Appreciates ESG But.....has Different Perspective



ESG- For Whom and What?



Scope of ESG - Environment

Carbon Reduction	Waste and Pollution Reduction	Biodiversity Promotion
Reducing Carbon Emissions	Pollution Emission	Efficient Land use/ use for diversifying crops/ carbon reducing species
Developing and promoting alternate Green Products/ Infrastructure	Waste disposal and diversion	Land soil preservation
Green Energy linkages	Energy consumption optimization	Water conservation and water bodies preservation
Clean Tech usage	Renewable energy usage	
	Packaging	Sustainable supply chain
Water Scarcity	Responsible and sustainable packaging	Supply chain transparency
Water consumption		Sustainable procurement
Water recycling		Sustainable materials

Scope of ESG - Social

Workforce	Human Rights	Product Responsibility
Diversity and inclusion	Supply chain standards	Product safety
Equality and equity		Data privacy
Human capital development		Cyber security
Health and safety		Responsible AI
	Community	
	Infrastructure development	
	Community empowerment	

Scope of ESG - Governance

Management	Corporate Behaviour
Board structure and action	Transparency and reporting
Management compensation	Risk and compliance
Anti corruption	Accountability/ ownership
Ethical business model	partnership

The Hurdles Leapt Past

- ESG is at the center of attention for everyone
- Metrics of ESG have been agreed upon
- ESG reporting has started
- Regulation around ESG is in place
- Supply chain is being integrated on ESG issues

How Serious is ESG Business?

- Profits still rule
- Business strategy changes when challenged with odd situations- Technology, recessions
- Ambition vs reality- raw material costs
- Competing narratives

ESG Vs CSR Vs Sustainability (as now)

ESG	CSR	Sustainability
Wider scope- E-S-G	Focused on only one element	Widest
High business value	Limited business value	High business impact- profits and costs
Limited regulated	Externally regulated	Regulated to reporting only

Impact So Far

- Labor issues in supply chain have received adequate attention
- Diversity issues at the top of the mind
- Work life balance is being discussed
- Inclusion of marginalized
- Governance issues have received immense attention
- Work ethics agenda now overtly stated
- Emphasis on documentation

Approach That Leads to Performance

Company Level	Government/ Nation
Setting clear targets	Mandating disclosures
Quality of reporting	Independent attestation
Adequacy of teams	Regulation for greater transparency
	Inclusion of ESG in public procurement
	Aggregation at national level on green sourcing/ production

Fine Tuning the Approach

- More specific goals and sub goals
- Concurrent measurement and reporting
- Teams/ human resources that match expectations
- Integrate ESG into decision making from reporting
- Get stakeholders involved

Fine Tuning the Approach

- Zoom in to develop insights on processes
 - Establish causal thread
- Zoom out of broader systems
 - Climate change, CO2 emissions

How Measures Mislead

- Measuring signals (outcomes) and missing processes (fundamentals that lead to long term impact/ change)
- Measuring the monetizable (CO2), missing the valued (biodiversity, crop production)

ESG in Oil and Gas

1. Refinery (Mid-Stream) & Production







- Green House Emissions control
- Use of bio-technology in Oil & Gas applications.
- Bio-Diesel & Bio-ethanol production.
- Solar energy production for captive use
- CBG (compressed Bio-Gas)
- Use of Treated sea water (Reduction of use if fresh water)
- Gasification of coal (Production of Hydrogen)
- Syngas conversion to useful products like bio-ethanol.

2. Retail Network

- Dispensing Units with VRS (Vapour Recovery System)
- Use of Solar Energy.
- Electric charging stations for vehicles
- Protective coating in tanks.
- Alternate fueling options apart from Petrol/ Diesel
- Auto-cut off and Breakaway nozzles/ Hoses.

3. Mobility

Types of green vehicles

 <p>Electric vehicle (EV) EVs run exclusively on electricity, which can be produced through clean methods like wind and solar.</p>	 <p>Plug-in hybrid electric vehicle (PHEV) PHEVs run on both electricity and gas. You can reduce your gas usage by plugging in more and driving less.</p>
 <p>Flexible fuel vehicle (FFV) FFVs run on gasoline and E85, which is 85% ethanol. Ethanol is produced from biomass like corn, sugar and wood.</p>	 <p>Fuel cell vehicle (FCV) FCVs use electric motors that are powered by hydrogen fuel cells. As a fuel, hydrogen has the potential to be emission-free.</p>
 <p>Natural gas vehicle (NGV) NGVs run off of natural gas, which emits less smog and greenhouse gasses. It also fills up as fast as regular gas.</p>	 <p>Gasoline hybrid Hybrids use an internal combustion engine and electric motor to run, making them more efficient than gasoline cars.</p>

Government Initiatives on ESG in Oil & Gas

1. National policy on Bio-fuel – 2018 (Amendment 2022)

- A target of 20% blending of ethanol in petrol is proposed by Ethanol (ESY) 2025-26.
- Target of 5% blending of biodiesel in diesel /direct sale of biodiesel is proposed by 2030.
- This Goal is to be achieved by
 - (a) reinforcing ongoing ethanol/biodiesel supplies through increasing domestic production
 - (b) setting up Second Generation (2G) bio refineries
 - (c) development of new feedstock for biofuels
 - (d) development of new technologies for conversion to biofuels
 - (e) creating suitable environment for biofuels and its integration with the main fuel Green House Emissions control

2. Fame1 and Fame2 Scheme

- The Faster Adoption and Manufacturing of Electric Vehicles (FAME) scheme was launched in April 2015 under the National Electric Mobility Mission, to encourage electric and hybrid vehicle purchase by providing financial support. Its first phase ran for four years until 2019.
- Government has approved Phase-II of FAME Scheme with an outlay of Rs. 10,000 Crore for a period of 3 years commencing from 1st April 2019.
- Out of total budgetary support, about 86 percent of fund has been allocated for Demand Incentive so as to create demand for xEVs in the country. This phase aims to generate demand by way of supporting 7000 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars (including Strong Hybrid) and 10 lakh e-2 Wheelers.

Government Initiatives on ESG in Oil & Gas

3. **The National Green Hydrogen Mission was approved by the Union Cabinet on 4 January 2022, with the intended objectives of:**

- Making India a leading producer and supplier of Green Hydrogen in the world
- Creation of export opportunities for Green Hydrogen and its derivatives
- Reduction in dependence on imported fossil fuels and feedstock
- Development of indigenous manufacturing capabilities
- Attracting investment and business opportunities for the industry
- Creating opportunities for employment and economic development
- Supporting R&D projects

Mission Outcomes Projected by 2030 are

- Development of green hydrogen production capacity of at least 5 MMT (Million Metric Tonne) per annum with an associated renewable energy capacity addition of about 125 GW in the country
- Over Rs. Eight lakh crore in total investments
- Creation of over Six lakh jobs
- Cumulative reduction in fossil fuel imports over Rs. One lakh crore
- Abatement of nearly 50 MMT of annual greenhouse gas emissions

Government Initiatives on ESG in Oil & Gas

4. CBG (Compress Bio Gas) efforts of GOI :

- Production of CBG would have multiple benefits viz. reduction of natural gas imports, reduction of GHG emission, reduction in burning of agriculture residues, providing remunerative income to farmers, employment generation, effective waste management etc.
- Government of India has set a target to increase the share of gas in the energy mix up to 15% in 2030 to make India a Gas-based economy.
- Presently we are importing around 50% of our requirement of Natural gas. .
- Various state Governments are giving special incentives/subsidies on land/ capital investment for setting up of CBG plants.
- Recently Prime Minister Narendra Modi on Saturday inaugurated Asia's largest bio-CNG plant in Indore district of Madhya Pradesh.
- The plant has been set up by the Indore Municipal Corporation (IMC) on public private partnership (PPP) model as per the Centre's 'wealth-to- waste' initiative at an initial investment of Rs 550 crore and is likely to generate 19,000 kg bio-CNG gas. The IMC will purchase bio-CNG at Rs 5 per kg and use it to fuel nearly 400 of its buses.
- In the coming years, the government is working towards setting up 75 such bio-CNG plants in big municipalities of the country.

Points to Ponder

- Despite Commonalities and Common Overarching Objectives
 - Is ESG same for small and large enterprise
 - Is ESG same for a small supply chain partners vs final producers
 - Is ESG same for services (say Tourism/ Financial Services) and for manufacturing
- How do we make the common denominator into a common goal

Thank You