

Deciding To Extract and Getting Good Deals

Key Considerations for a Sound Business Model

Advance Accountable Resource Governance in the Asia Pacific Region

ASAPAC Knowledge Hub DPP Gajah Mada University - NRG

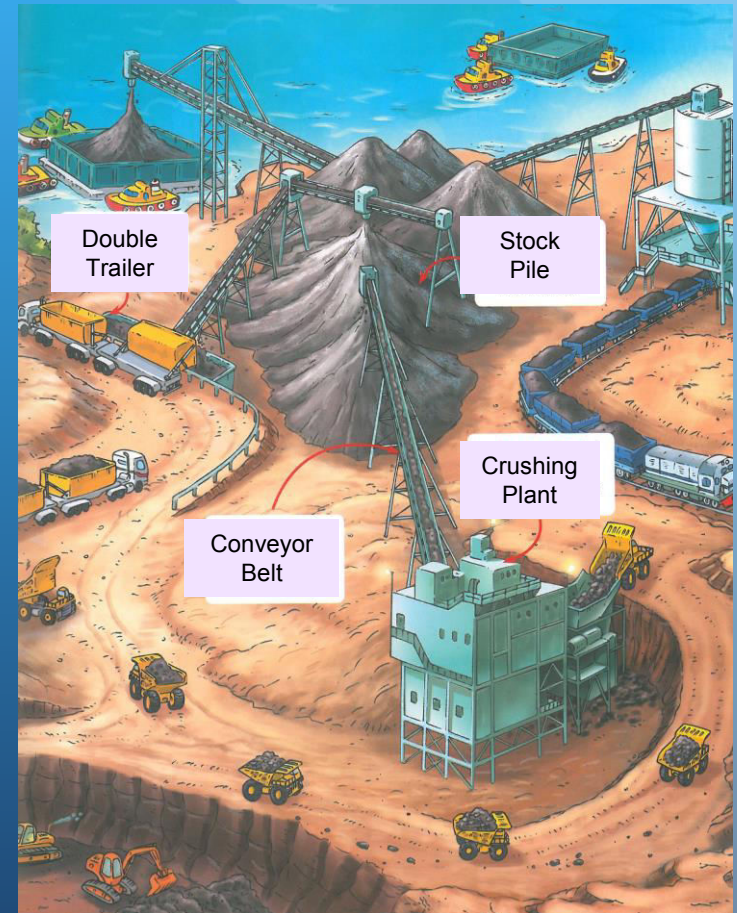
Jogjakarta - Indonesia, January 10th 2017

Overview

1. Defining the Extractive Industry
2. The Industry Value Chain
3. The Revenue Stream - Fiscal and Revenue Sharing
4. The Paradox - Curse or Blessing
5. Good Governance - Background and Challenges
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Defining the Extractive Industry

- Industrial activity for the physical extraction of metals, hydrocarbons, minerals and soil aggregates from the earth.
- The activities consist of mining, quarrying, dredging, oil or gas exploration and extraction
- Mining - extraction of metals and coal from underground or above ground mines
- Quarrying - extraction of aggregates and minerals above ground
- Dredging - extraction of marine aggregate underwater
- Crude Oil - extraction of liquid fossil fuel
- Natural Gas - extraction of gaseous fossil fuel
- Coal - extraction of solid fossil fuel
- Mining and petroleum raw materials are non renewable natural resources. production, processing, refining and transport is technological driven and capital intensive.



Why is the Extractive Industry so Important

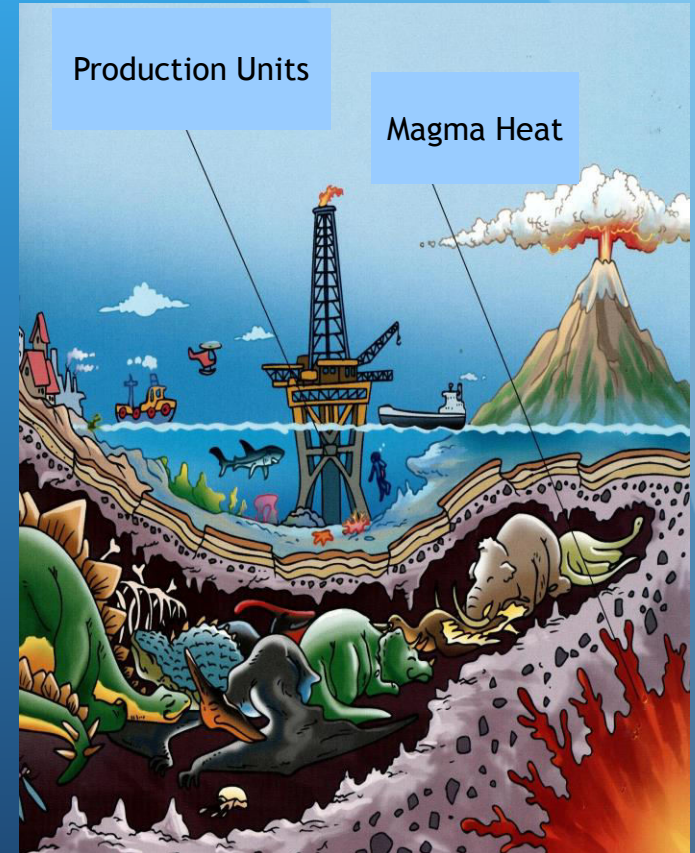
- Provide feed stock for fabrication of various raw material needed for a modern society
- Provide revenues for a country to fuel and to sustain its economy
- Provide energy source used for various activities in transportation, beauty, cooking, power generation and raw materials for petrochemical and industry products.
- Provide for iron ore, copper, limestone, gravel and clay vital products for the construction industry



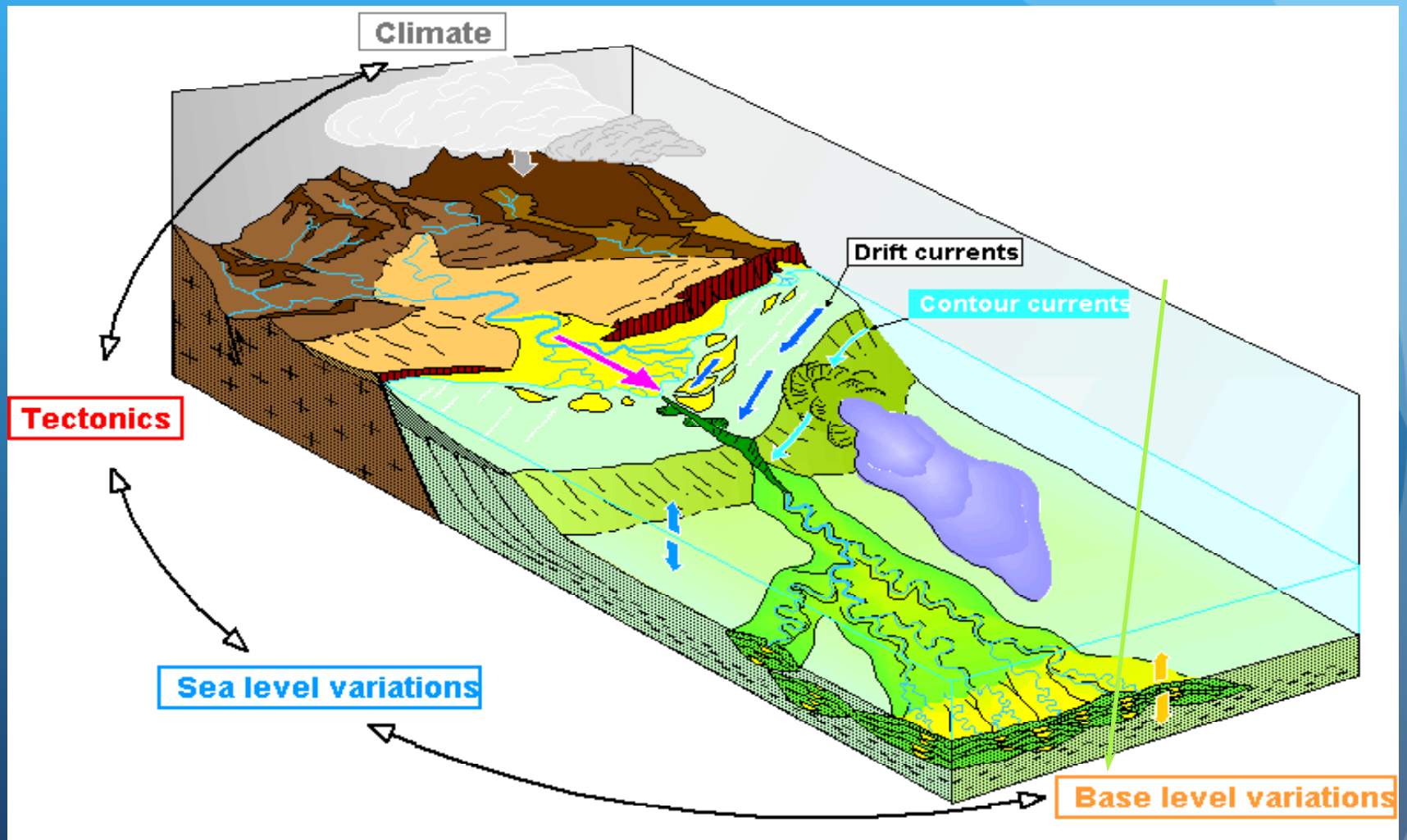
Without the above, life would not be like we know today

The Case of Oil and Gas

Produced from 100% organic materials after degradation process of animals and vegetation under intense pressure and high temperature under the ground for millions of years.

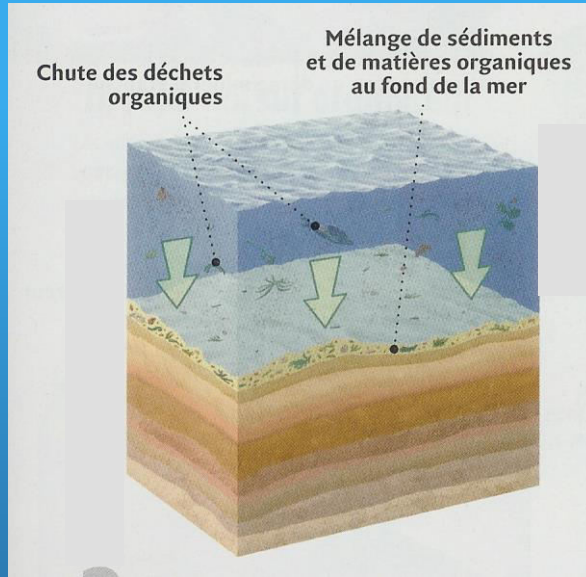


Where Does Oil and Gas Come From

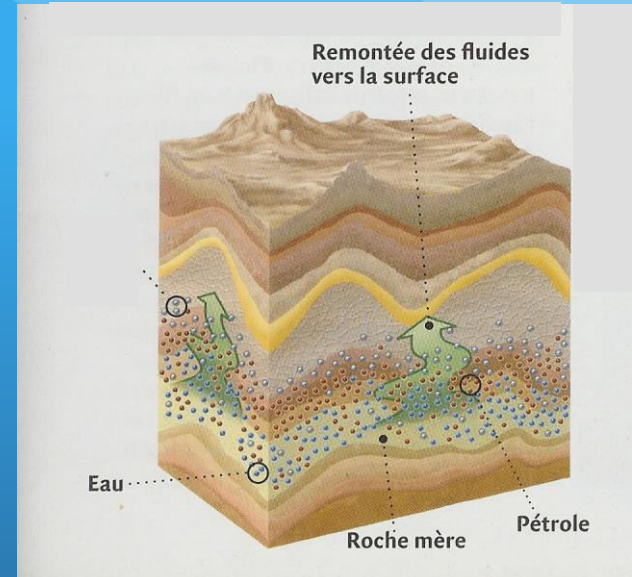


Biomass Degradation Process

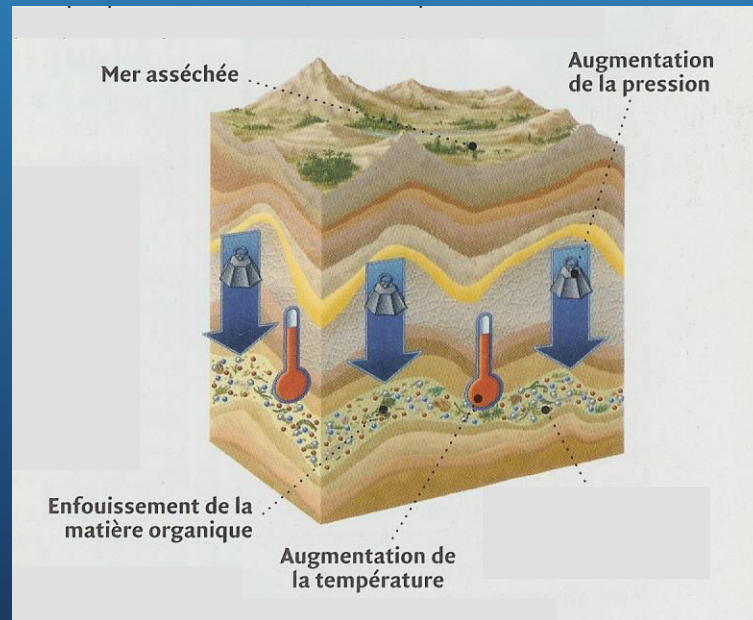
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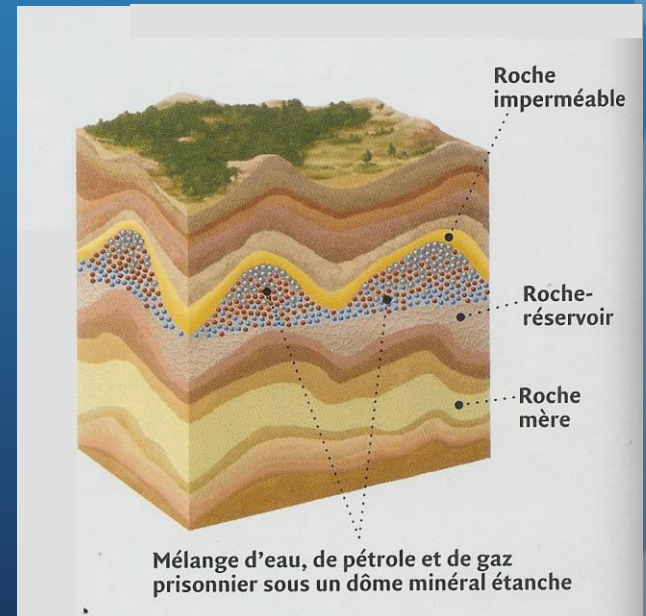
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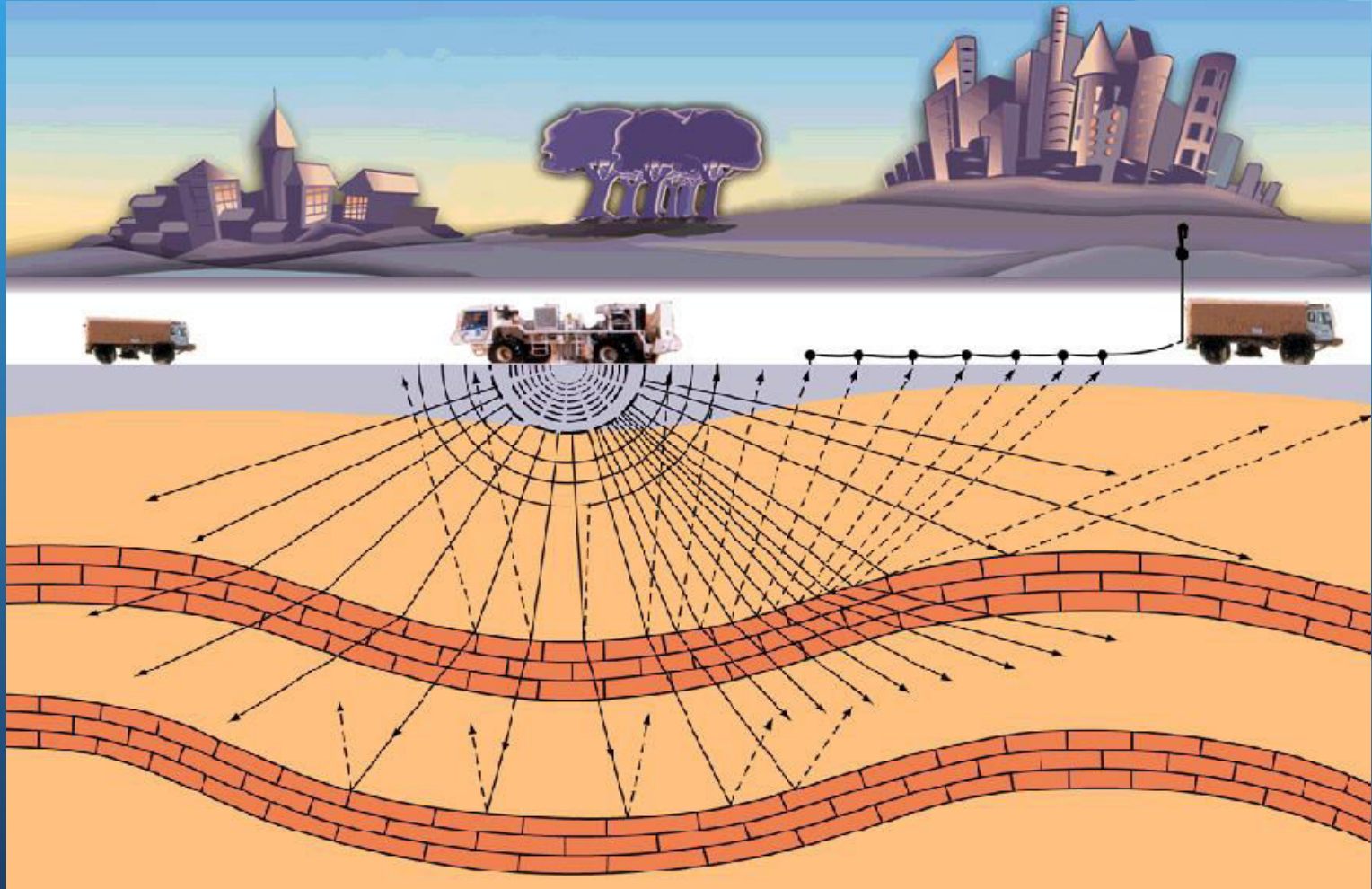
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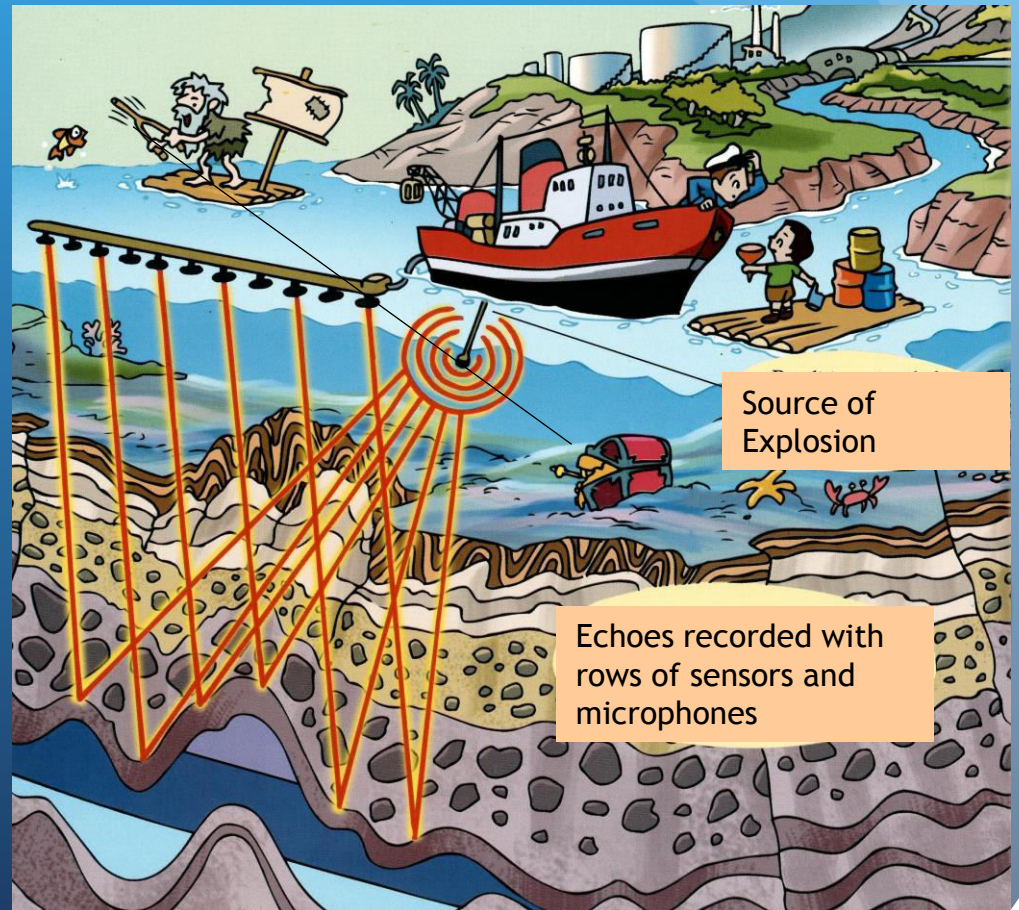
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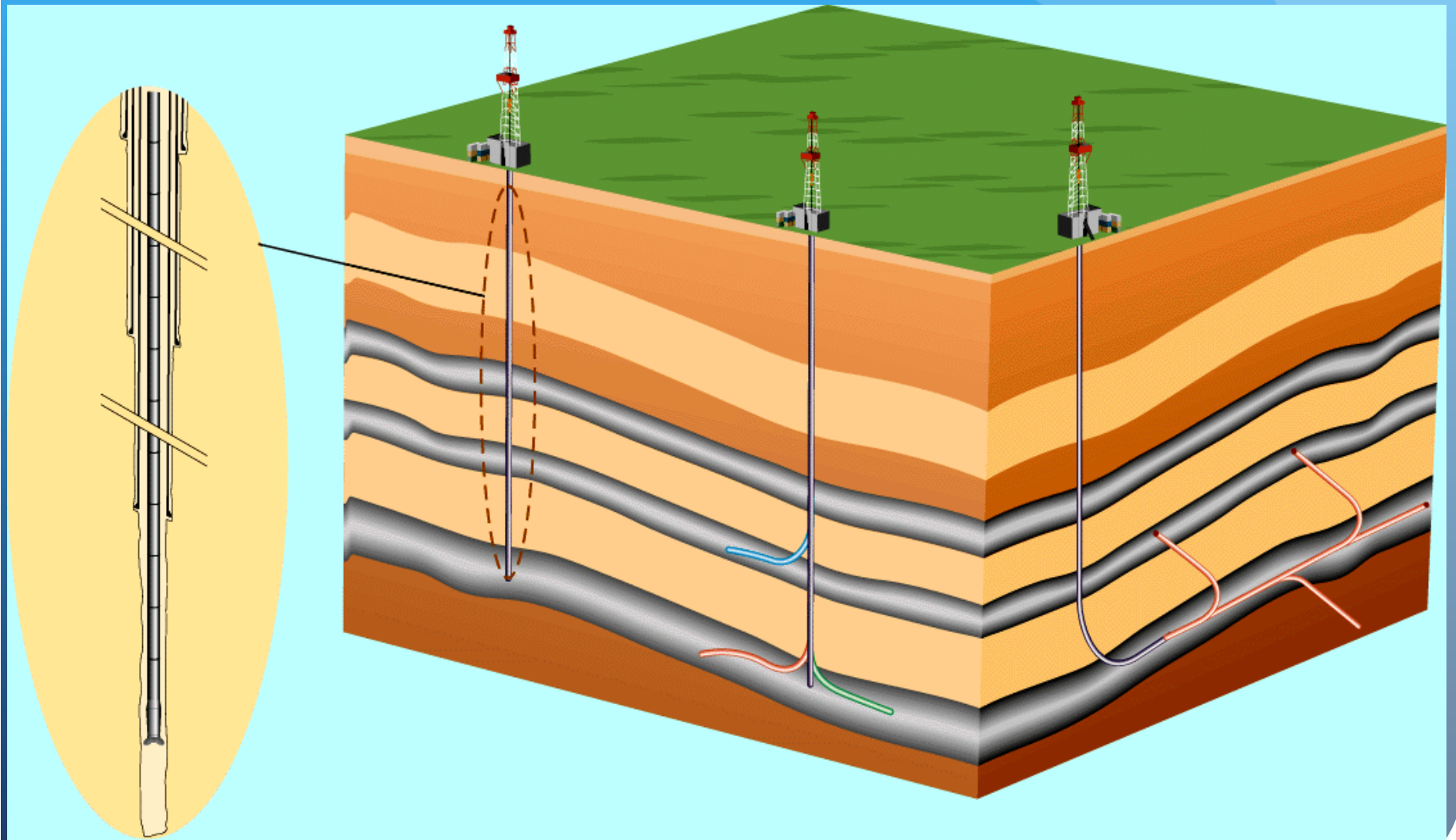
Searching for Hydrocarbon Reserves on Land with Seismic Process



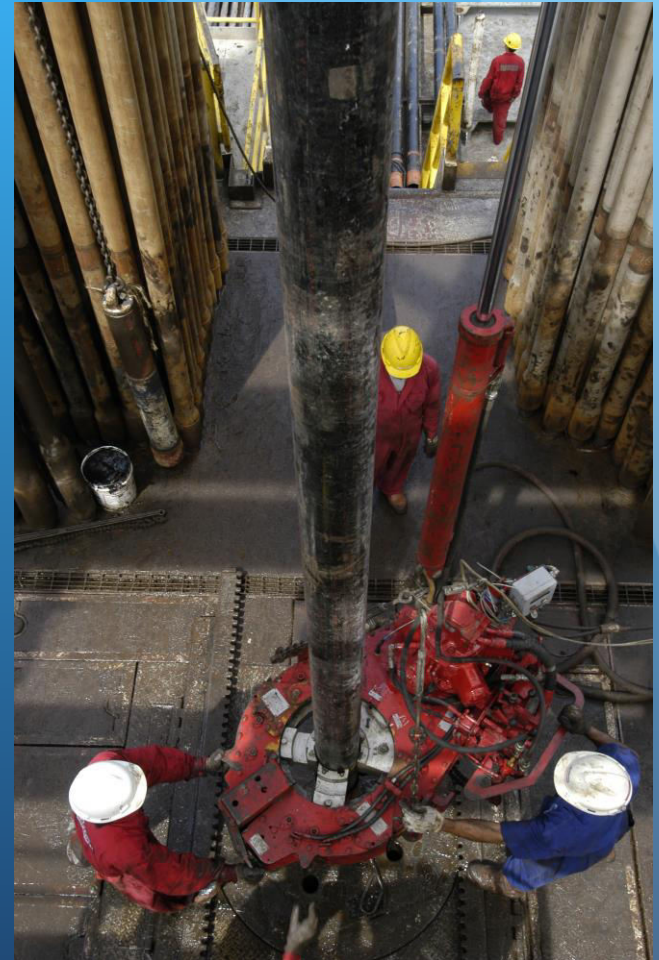
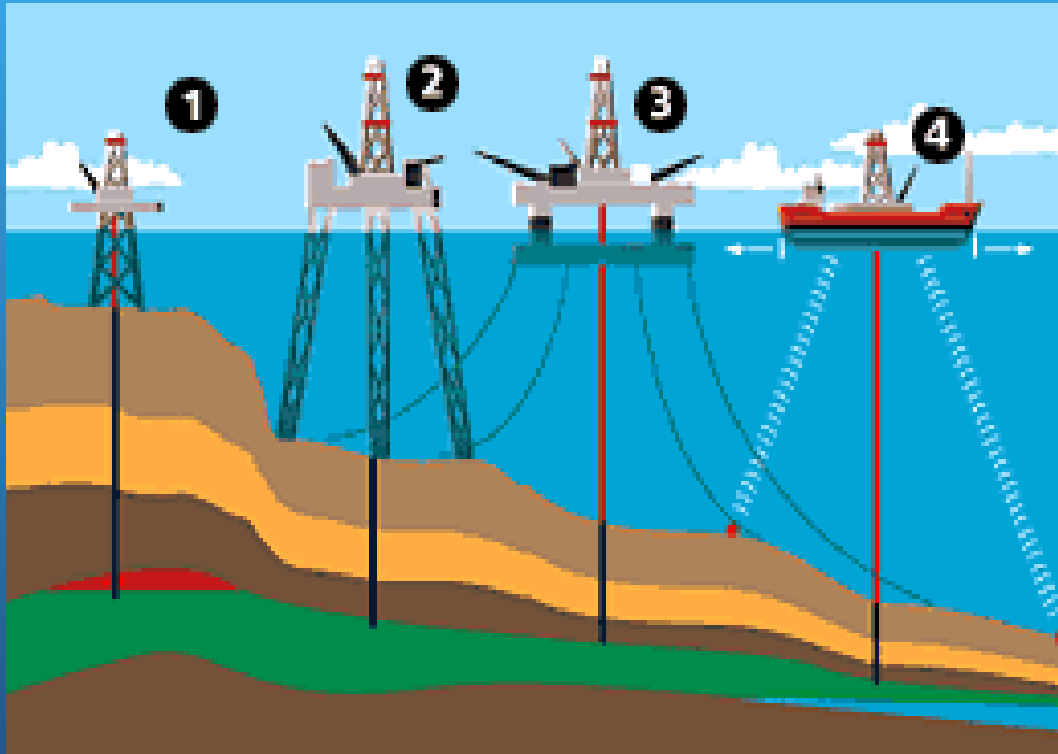
Searching for Hydrocarbon Reserves at Sea with Seismic Process



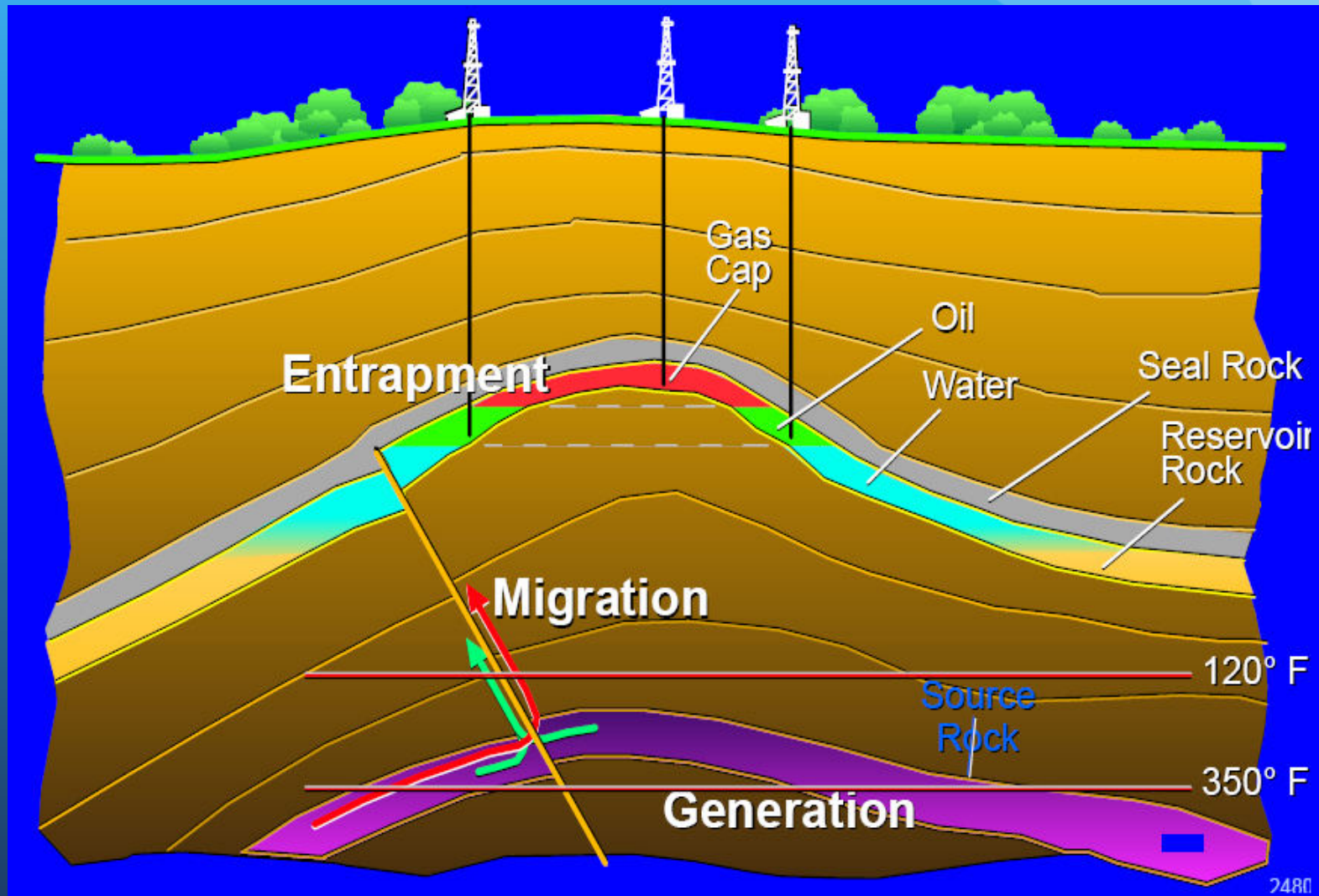
Drilling on Land



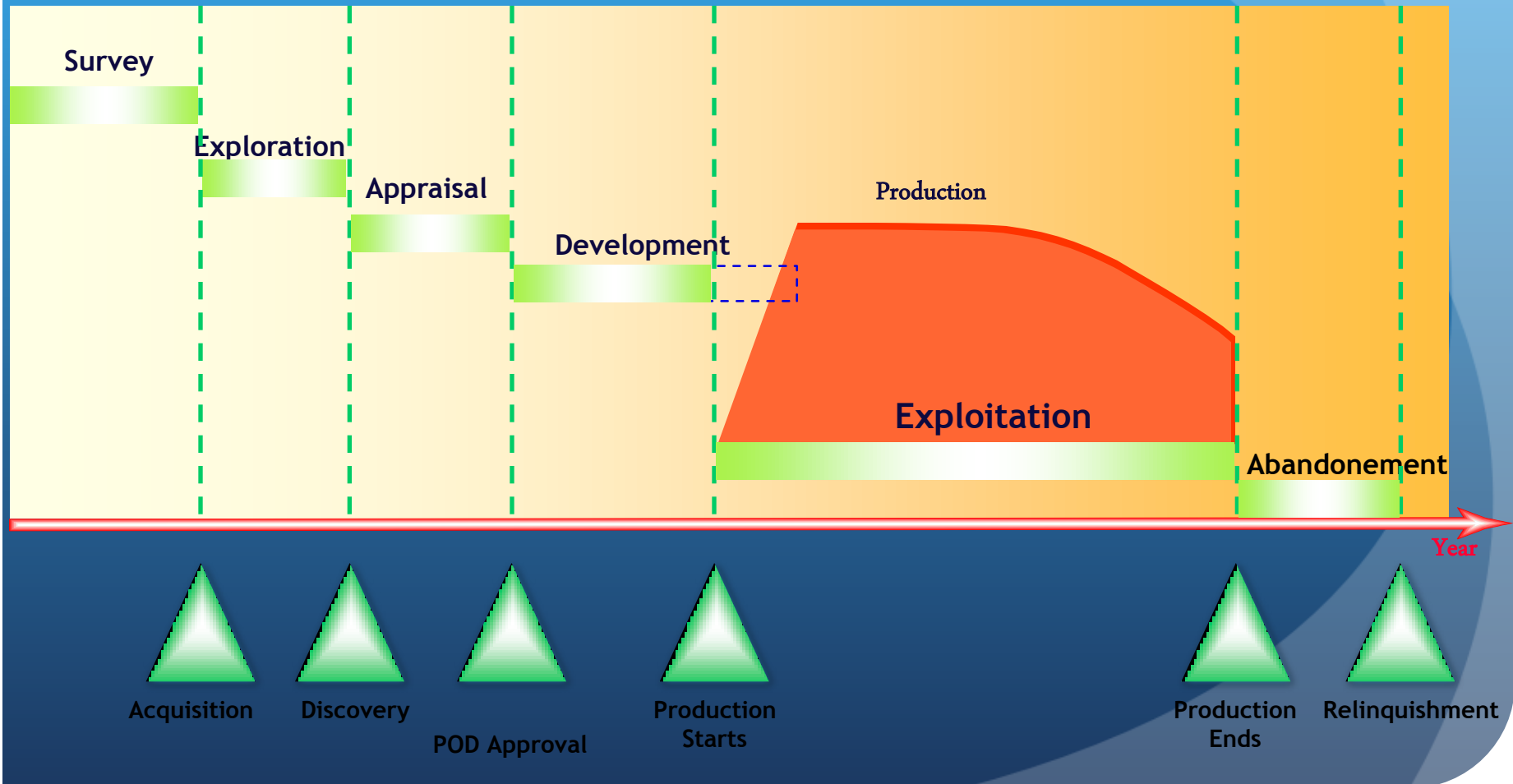
Drilling at Sea



Production of Oil and Gas



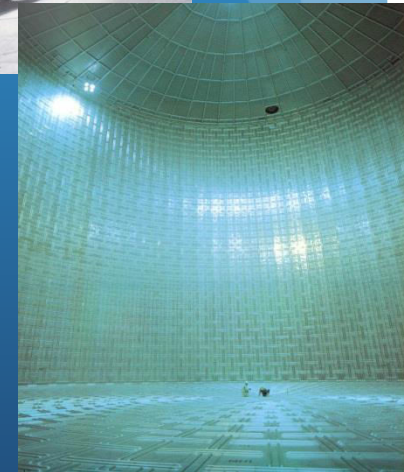
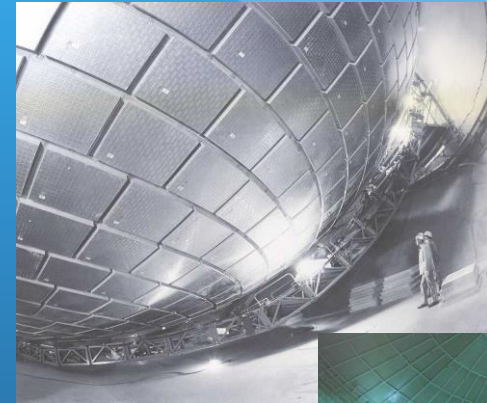
Oil and Gas Field Development Timeline



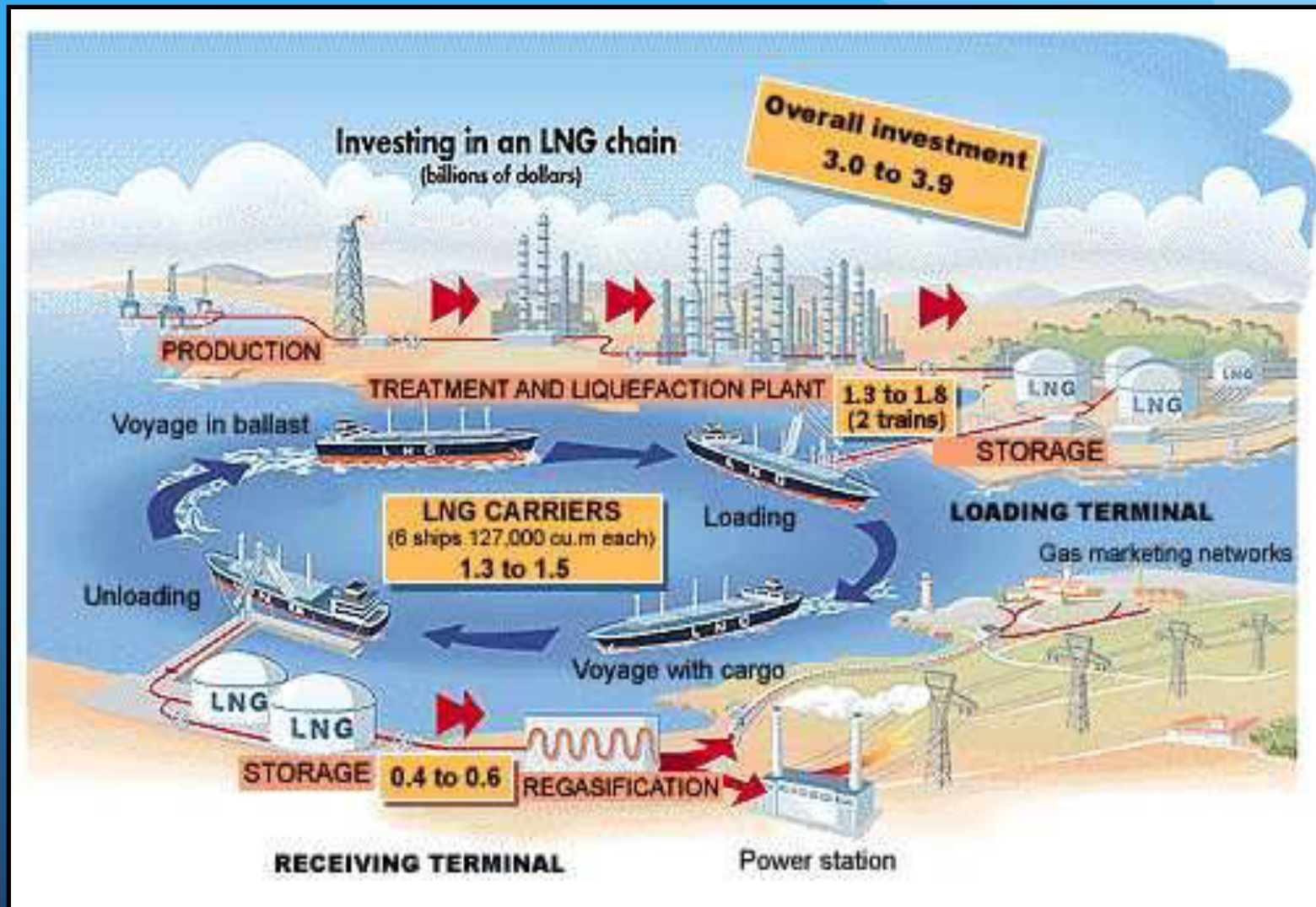
The Gas Value Chain

The process to produce, to liquefy, to transport and re gasify natural gas from a producer to a consumer

- Pipes, tanks and equipment should be made of materials capable of maintaining their strength at high pressure and in the case of LNG in extremely low temperature
- Before being processed, wellhead gas needs to be purified to prevent contaminants from damaging the installations
- Piped gas transportation has to be done at high pressure thus requiring the installation of compressors
- In the case of LNG, refrigeration is costly and requires giant heat exchanger



The Gas Value Chain is costly

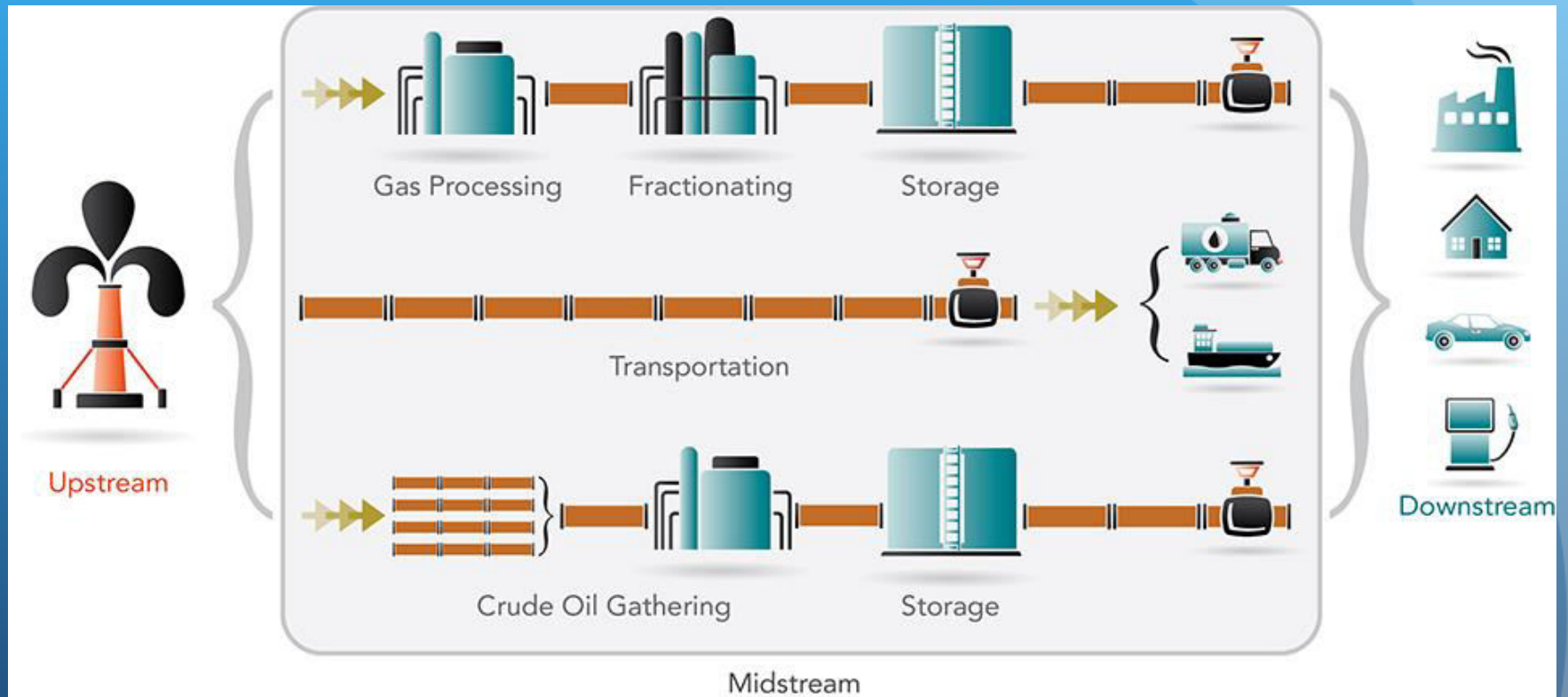


The Gas Value Chain is rigid

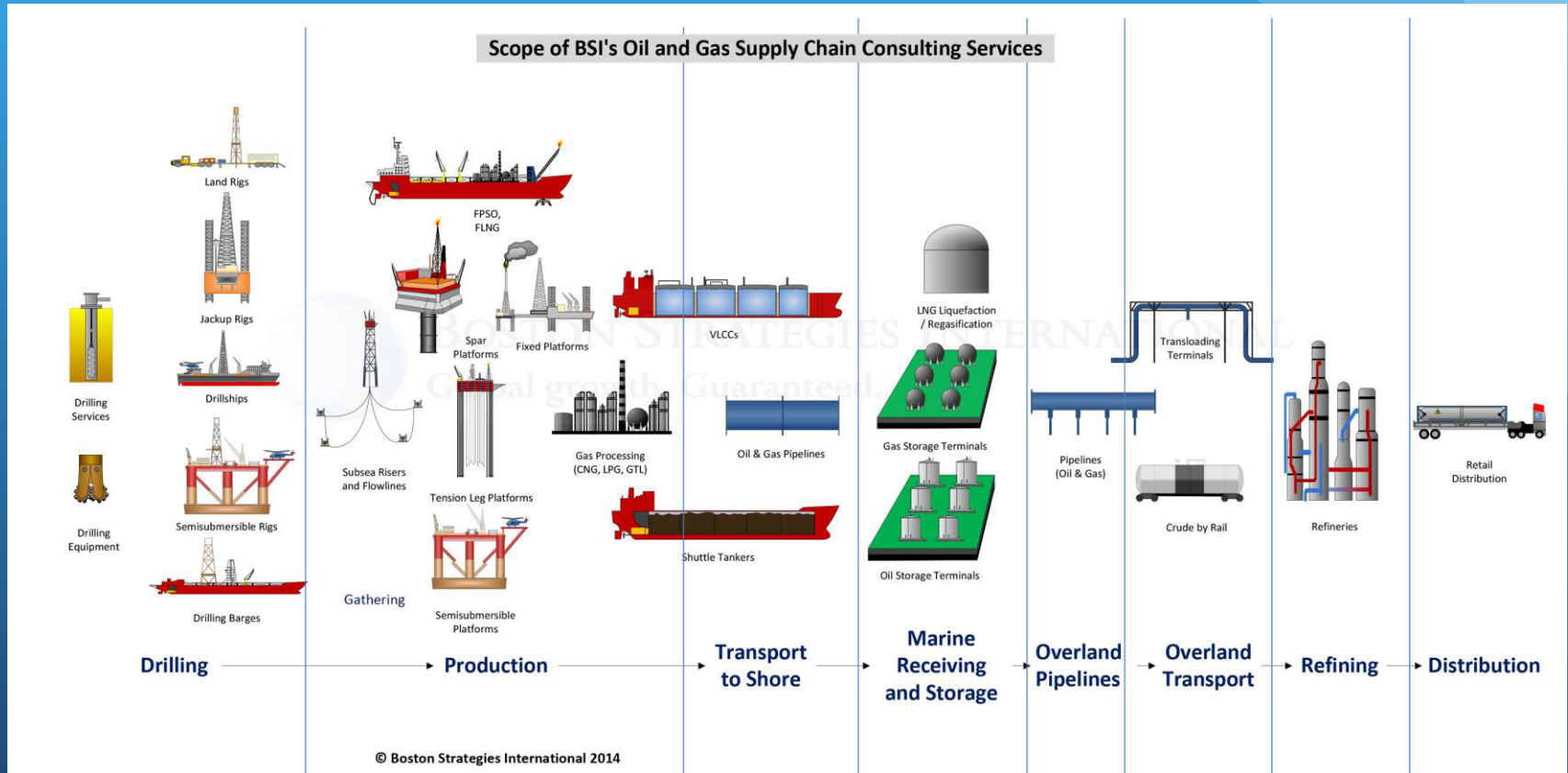
- Each contract is negotiated on a case by case basis.
- Each contract is dedicated to meet unique needs of Buyers and Sellers
- Contracts are for long term as guarantees are needed for banks to finance huge investments
- Big clients looking for source of long term energy supply



The Gas Value Chain is complex



The Gas Value Chain is complex



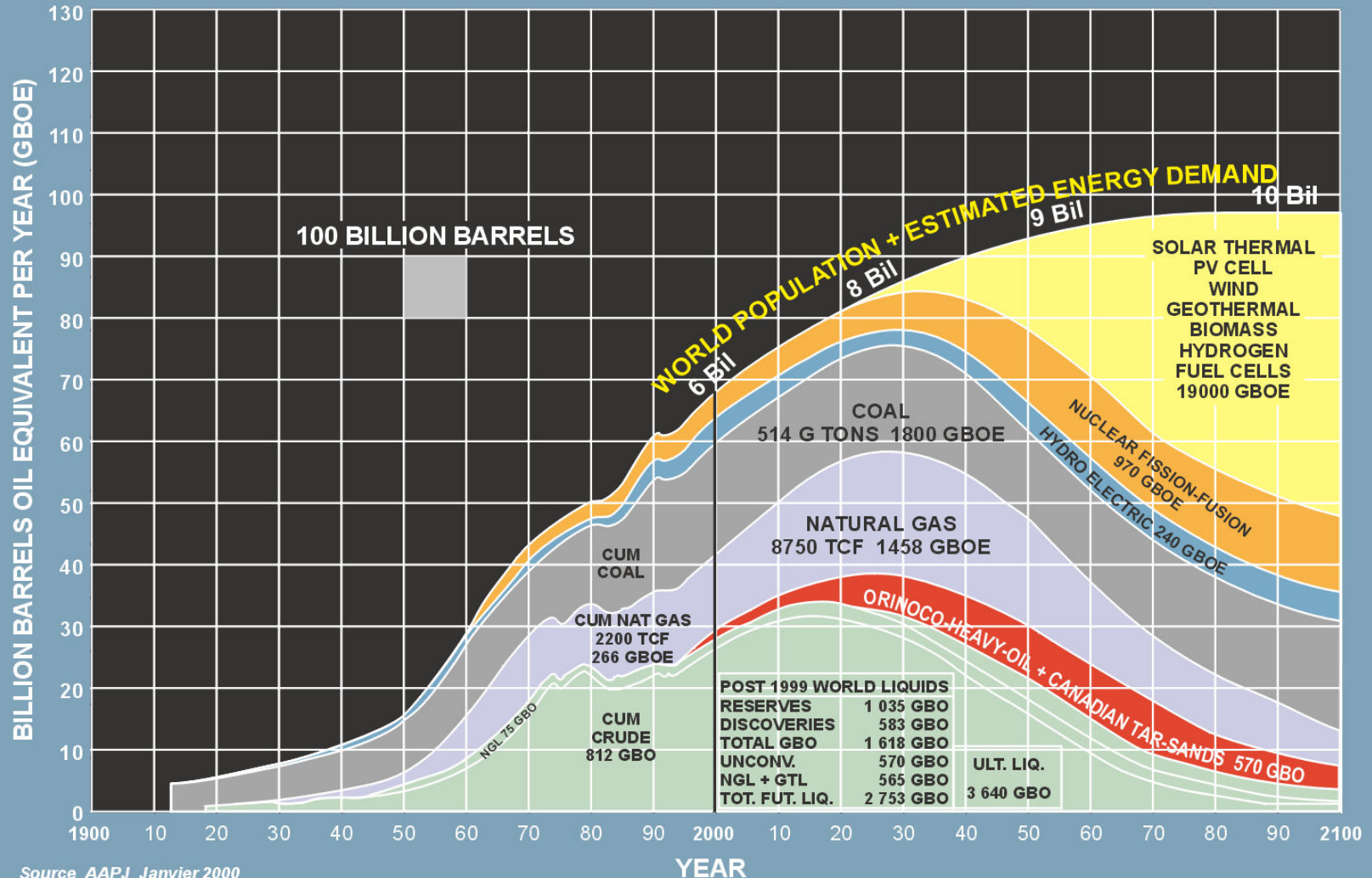
But ...

- Natural gas is a premium class fuel, almost pure methane and ethane with no contaminants at all
- Natural gas is environmentally friendly - very important for industrialized North Asian countries where pollution and nuclear safety is a concern
- Many power plants, at present, burn coal and use nuclear fusion



***Natural gas is a cleaner than coal or oil
and safer than nuclear.***

World Energy Demand Forecast



Estimate Oil and Gas Cost

- Offshore Oil Platform (100 000 bbl/d) 2 Billion US\$
- Oil Refinery (200 000 bbl/d) 3 Billion US\$
- 1000 Km Gas Pipeline 1 Billion US\$
- Drilling 1 Offshore Exploration Well 20 Million US\$
- Fuel Distribution Station Pump 1 Million US\$
- Crude Oil Price per bbl 45 US\$



The Revenue Stream - Fiscal and Revenue Sharing

Philosophy of the Indonesian Petroleum Production Sharing Contract

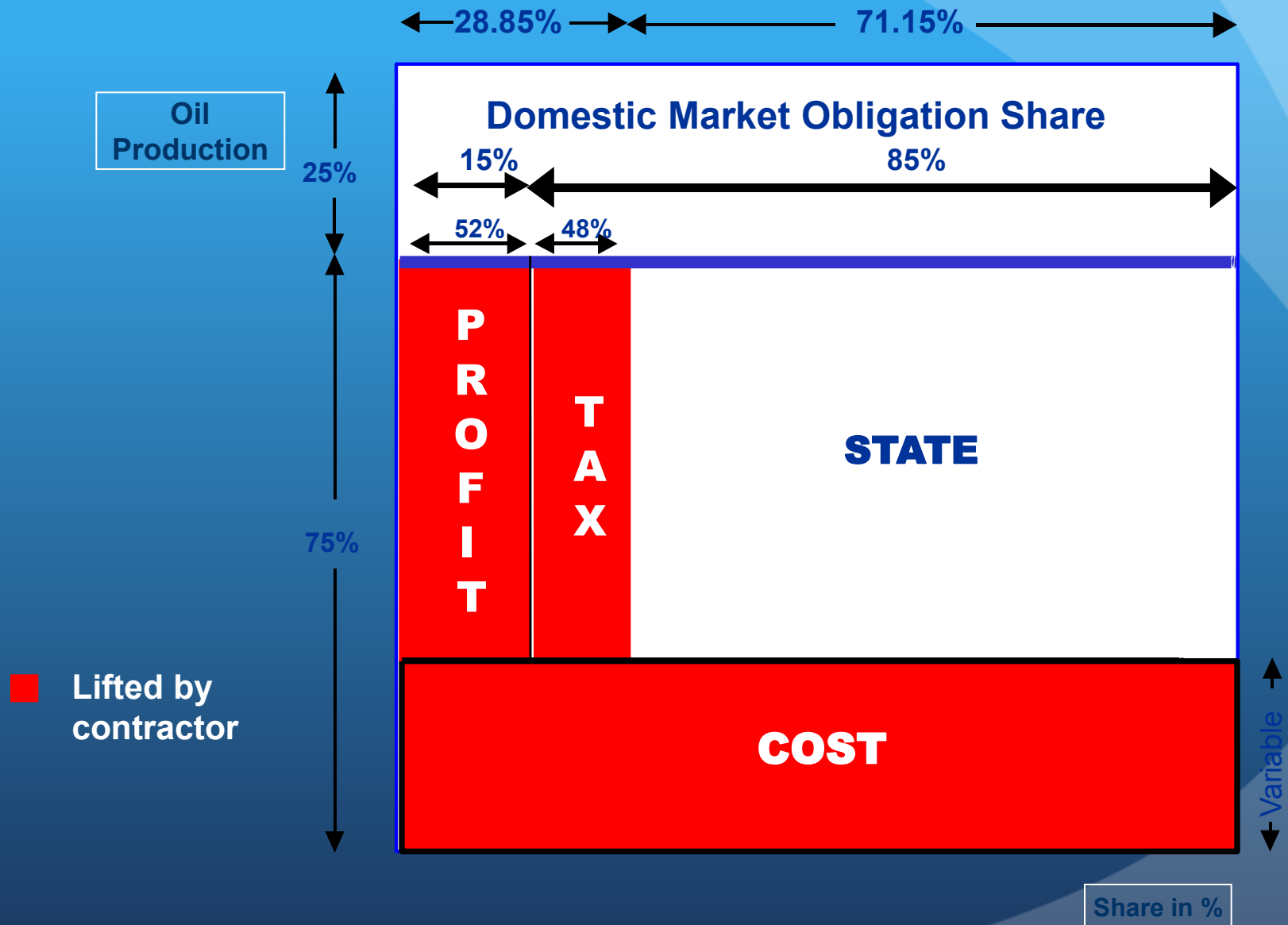


Production Sharing Contract - Basic Principles

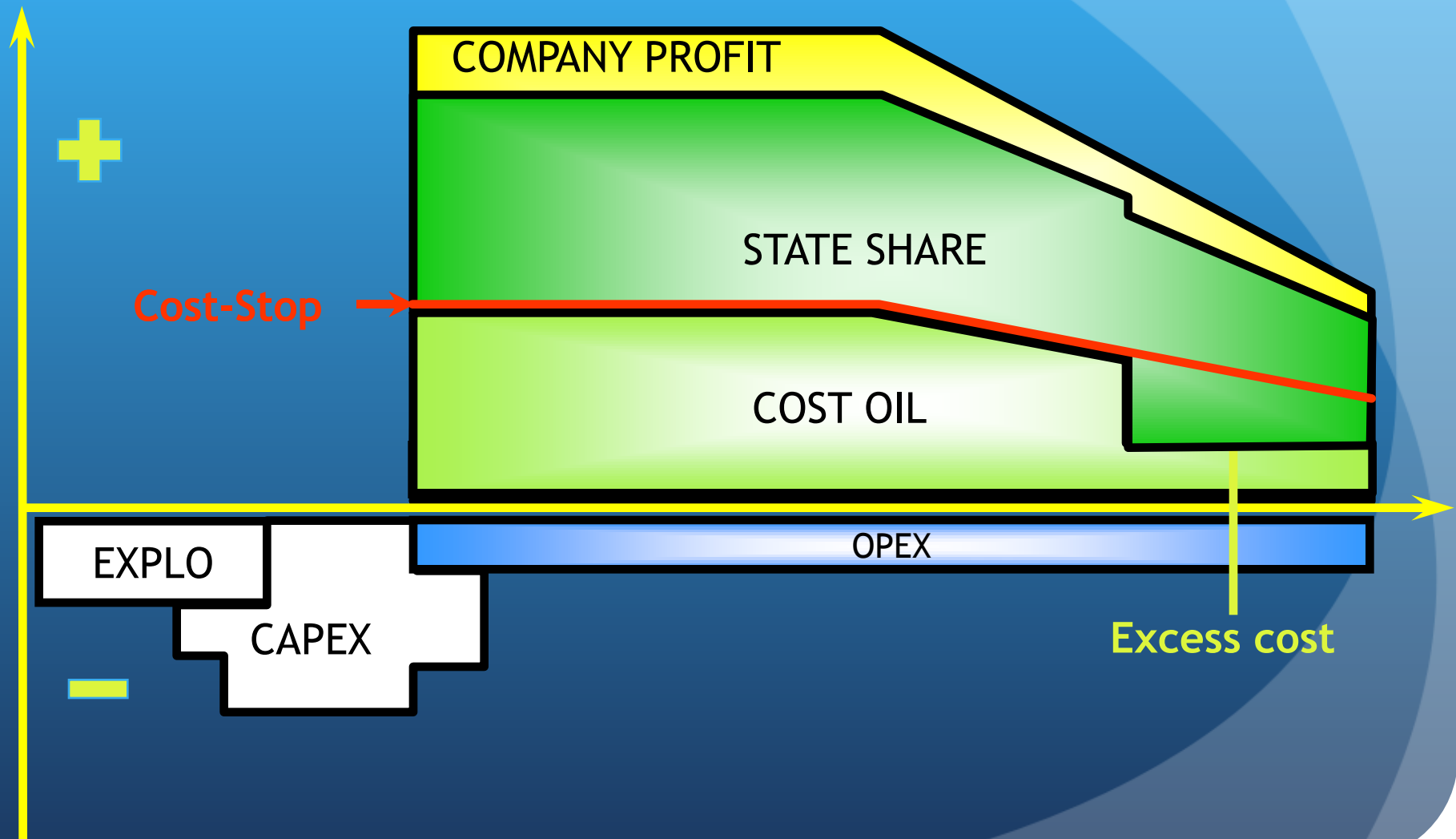
- A contract between a Government and a foreign oil company for oil and gas exploration and exploitation activities which defines how to share the production if a commercial discovery is made.
- The company carries all exploration and development costs and is entitled to recuperate its costs before the profit is shared with the government.



PSC Oil Revenue Split Structure



Cash Flow PS Timeline



The Paradox - Curse or Blessing

However

- Some 3.5 billion people, roughly half the world's population, live in countries endowed with abundant store of oil and gas wealth, yet the majority of its people live in poverty surviving with 1 US\$ or 2 US\$ a day.
- In 2010 the entire package of international aid to the poorest 60 countries in the world totaled 34 billion US\$ or around half the amount of revenue that Nigeria, Angola, Iraq and other resource rich countries earned from oil sale revenue the same year
- Corruption in resource rich countries contributes to what is known as the *resource curse*: instead of the additional revenue it generates to improve lives, it harms the country where they are extracted.

It all boils down to governance thus to being accountable where citizens and businesses have the information to hold politicians to their responsibilities to serve the public interest in a transparent accountability platform

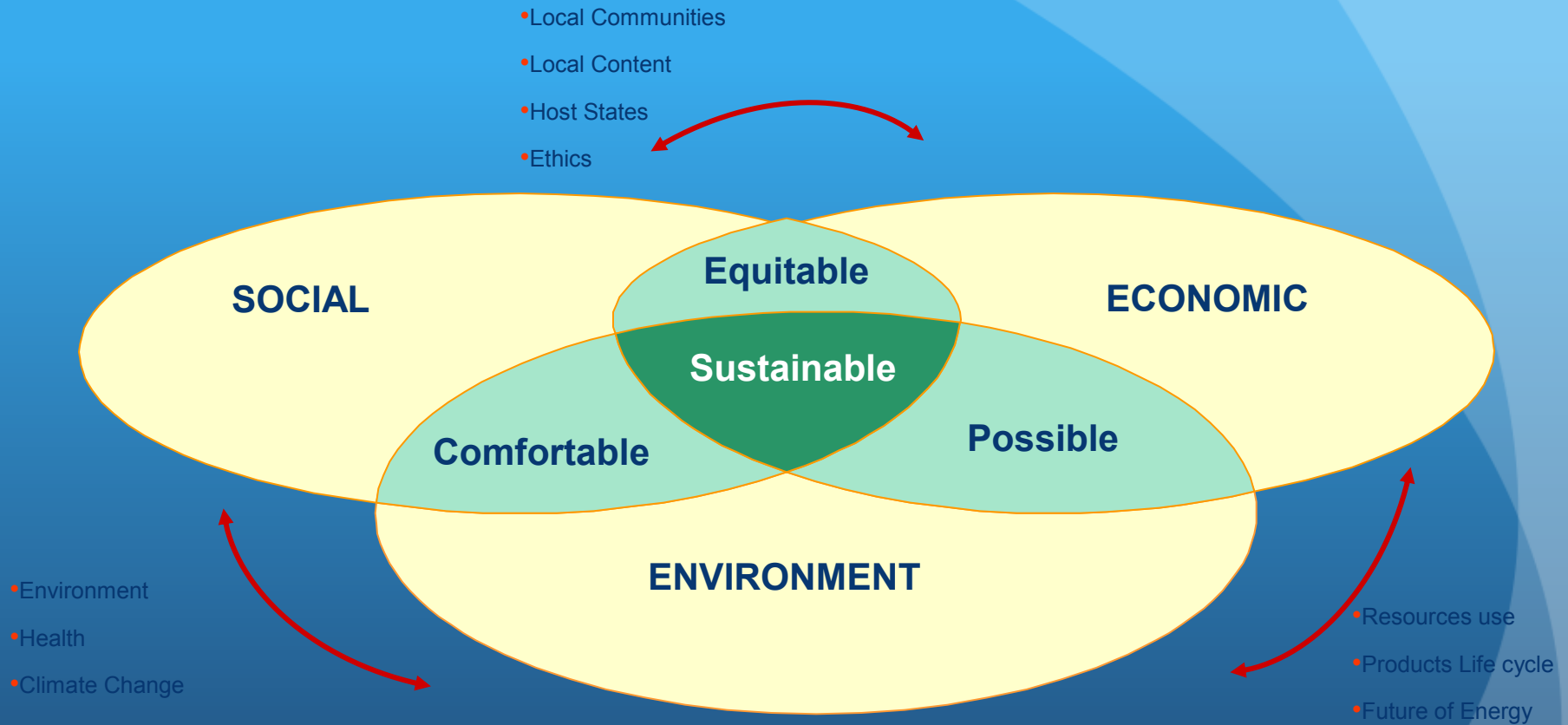
Corporations Should Leave a Sustainable Footprint

- Because sustainability issues are more and more important ...
 - Limited Resources (energy, raw materials, water, land ...)
 - Damaged Environment (air, water, wastes, soils ...)
 - Reduced Biodiversity (ecosystems, species ...)
- ... while Development question is being asked everywhere ...
 - 6 G inhabitants, maybe 10 G
 - 1 G developed countries, 5 G developing countries
 - Food, housing ... but as well comfort, electricity, mobility ...
- Because Big Companies have too much turned their back to Society
 - Minded by their industrial and commercial challenges ...
 - Not very motivated to explain themselves, even with their neighbours ...
 - Lack of understanding with Civil Society as a normal consequence ...



Good Governance - Background and Challenges

Good Governance is Developing Sustainably



Sustainable development is a process that allows existing generations to meet their needs without compromising the ability of future generations to meet theirs

What pushed corporations to go for good corporate governance

- The Enron Corporation implosion in 2000 and the wave of corporate scandals that followed, the 9/11 disaster shook investor confidence that created a volatile capital market.
- A coalition of consumers groups and labor unions in the US released a report that corporate scandals have cost American taxpayers more than USD 200 billion in lost investment savings, jobs, pensions and tax revenues.
- Anger and distrust targeting US corporations due to irregularities in financial and operation reportings that misled investors.
- Corruption in resource rich countries contributes to the *resource curse*: instead of the additional revenue it generates to improve lives, it harms the country where they are extracted
- The 1987 Brundtland Report on Sustainable Development
- The 2002 Johannesburg Earth Summit
- The UN Convention Against Corruption Article 52 Chapter V
- Natural Resource Charter

Business Ethics ensures a Sustainable Footprint

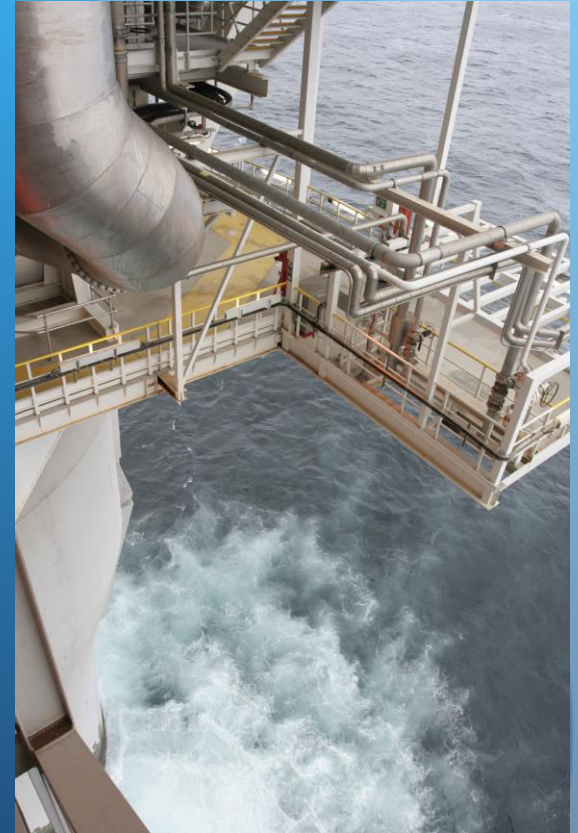
According to its code of conduct, corporations should be accountable to:

- its **shareholders**, striving to ensure them a profitable investment
- its **customers**, compliance with accepted SE standards working to supply quality products and services, in strict
- its **employees**, paying attention to their professional development and the promotion of health and safety in the workplace
- its **suppliers and partners**, complying with clear contract terms and conditions. The Group also expects them to comply with the principles and behaviour laid down in its code of conduct.
- its **civil society**, contributing to the social and economic development of countries in which the Group operates,

*Corporations should respect local cultures and
protecting the environment*

Ethical Values and Principles

- Respect, the source of sustainable, trust-based operations and relations
- Responsibility toward others and in our jobs
- Exemplary behavior, which underpins the internal and external credibility of our actions and initiatives
- Upholding human rights
- Ongoing concern with safety and environmental protection
- Respect for everyone we work with
- Integrity towards the company and in our business relationships
- Non-interference in political processes
- Support for colleagues, host communities and businesses partners



Conclusion and Summary

- Oil and gas is a non renewable energy source and its exploitation requires strategic planning as it is a vital pillar of a nation's economy (at least for now).
- It's exploitation is costly, capital intensive, environmentally sensitive and technology driven
- In Indonesia and in many countries revenue management from oil and gas follows a production sharing scheme agreed between a host country and an operating license holder
- Mismanagement of such revenues could lead to distrust, civil and political unrest, wars and environmental disasters.
- Good corporate governance principles are needed to sustain a company's development in a country or a region.
- Sustained development helps reduce a company's physical and non physical footprint and accountability

Corporations Should Respond to Changing External Expectations

External environment and challenges

Global

- Responding to demographic growth and human development aspirations in an environment shaped by finite resources and environmental protection requirements

Globalization

- Taking into account challenges to the growth model of multinational companies

Stakeholder relations

- The position to be taken in the context of changing relationships with states and society

Impact on operations

Companies must increasingly earn their “license to operate,” by responding to stakeholder expectations

- They have to listen to and dialogue with stakeholders to fulfill their corporate social responsibility to civil society
- In industrialized and developing countries, regardless of the degree of organization of civil society

It all boils down to governance thus to being accountable where citizens and businesses have the information to hold politicians to their responsibilities to serve the public interest in a transparent accountability platform

Current Industry Status

- Positive
 - Economic and political stability
 - Strong economic growth
 - Good geological prospectivity
- Negative
 - Steady production decline ---→ no exploration
 - Latest exploration bid rounds ---→ luke warm
 - Regulatory process still slow and uncertain
 - Increasing bureaucracy
 - Sector very politicized

With the right executive decisions the industry could drastically pick

Investor Relations

- What this country needs to attract investors
 - Regulatory clarity
 - Consistency
 - Certainty
 - Competitiveness
- To do so what would be required are
 - Trust and Integrity
 - Breakthroughs and systemic initiatives
 - Courage to make bold decisions and experiments
 - Focus on performance and delivery
 - Use of technology and enhance accountability

To do business in Indonesia, it is important that players understand the various background of the investment climate. Historic, social, political are important elements to this understanding.

What Should Potential Investors Do?

- Understand the historic of your field of activity
- Map your stakeholders at the geographic, industry and business areas
- Be open when you brief your corporate office on ethical challenges --→ avoid double standards
- Identify local key stakeholders which could become valuable friends or allies
- Understand the local culture and customs --→ Avatar
- Be flexible, there is no such thing as 'my way', 'my company's way' or 'my country's way'. It should be an understanding with the 'Indonesian way'.
- Listen to your local or national employees, they can help you understand the chemistry.

Suggestion and Recommendation

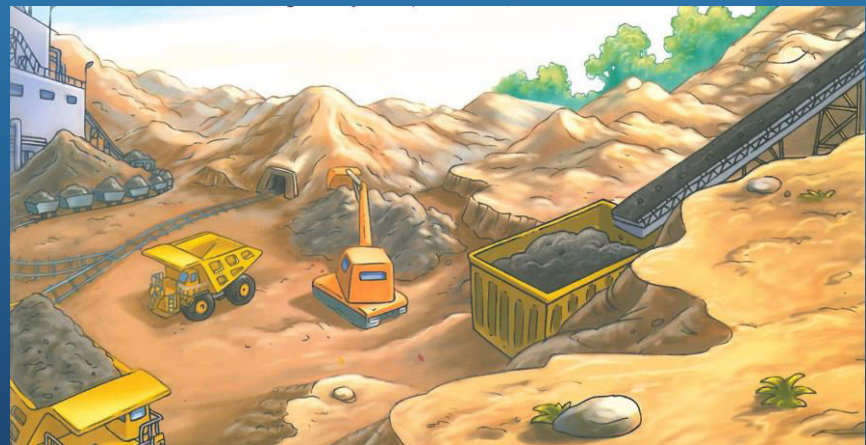
- To enforce a sustained management of revenue resources is the implementation of data disclosure and transparency to be overseen by civil society
- Civil society gives credibility to such announcements
- Accountability is needed to secure investments for a more predictable business environment
- For a company transparency ensures access required for correction of performance
- For a company building trust would be needed to address stakeholders key concerns about business performance
- Civil society should take the initiative to address the industry and the government to initiate a multistakeholder dialogue

Companies should not be shy to welcome such initiatives

“.....corporations should understand that the world is not asking them to do something different, rather it is asking them to do their business differently.

The more progressive and dynamic among them are already seizing the opportunities of an alternative and sustainable future - we hope that this can eventually grow to become a new norm”

*UN Secretary General Kofi Annan
at the Johannesburg Earth
Summit September 2002*





Thank You

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