جامعة بيروت العربية
BEIRUT ARAB UNIVERSITY

المؤتمر الافتراضي الأول لسلامة العمليات الكيميائية الأردني الدولي
First Jordanian International Chemical Process Safety Virtual Conference
الصحة، السلامة، البيئة، المجتمع والأمن الكيميائي
Health, Safety, Environment, Social and Chemical Security

Risks in Oil and Gas Industry: Walkthrough Environmental Governance System in Lebanon

First Jordanian International Chemical Process Safety Virtual Conference (JCPSC)

30-31 March 2021

Dr. Rami Harkouss
Chairman
Chemical and Petroleum Eng. Dpt.

Drilling Fluids

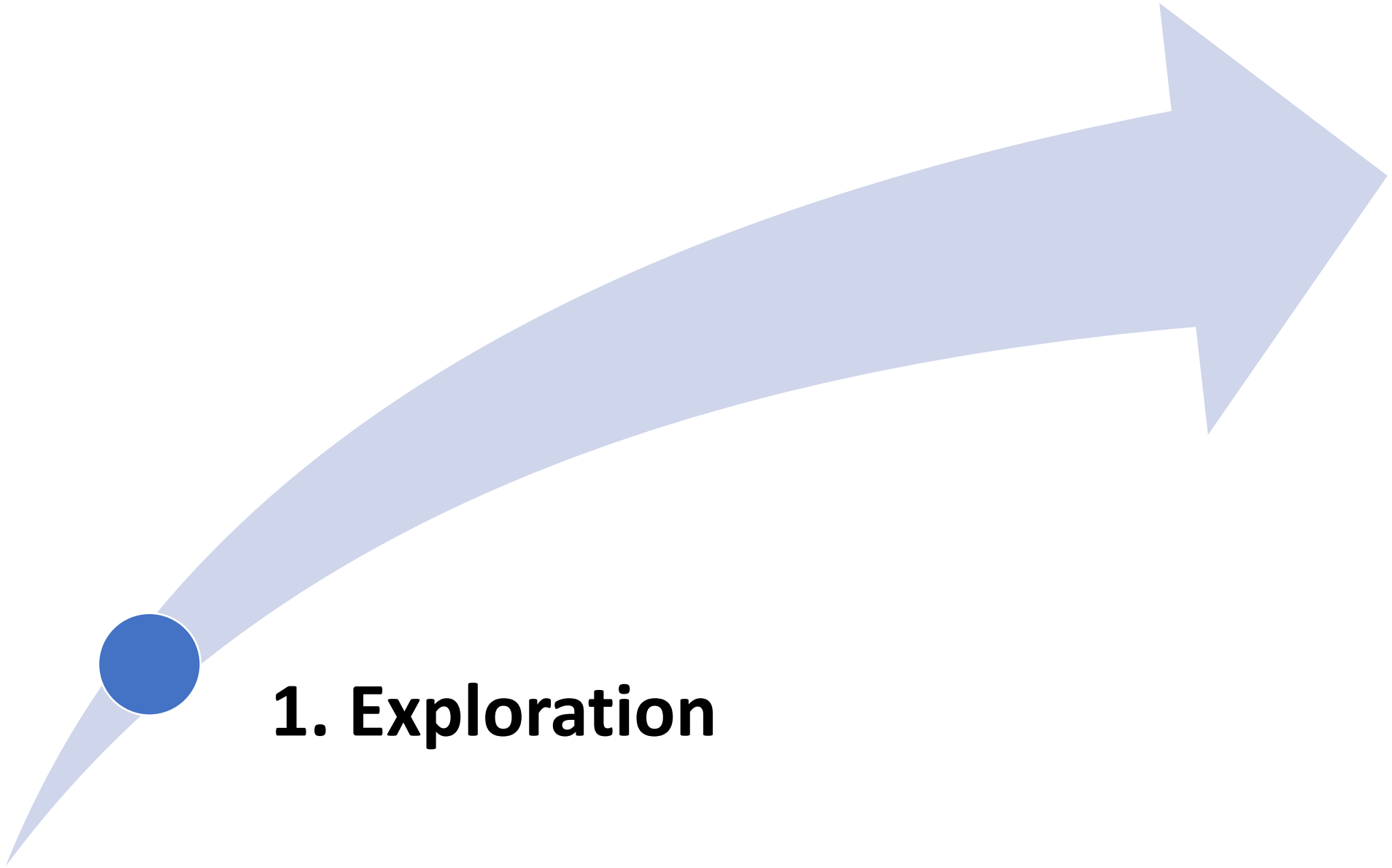
القوانين والتشريعات البيئية

Lebanese Environmental Issues

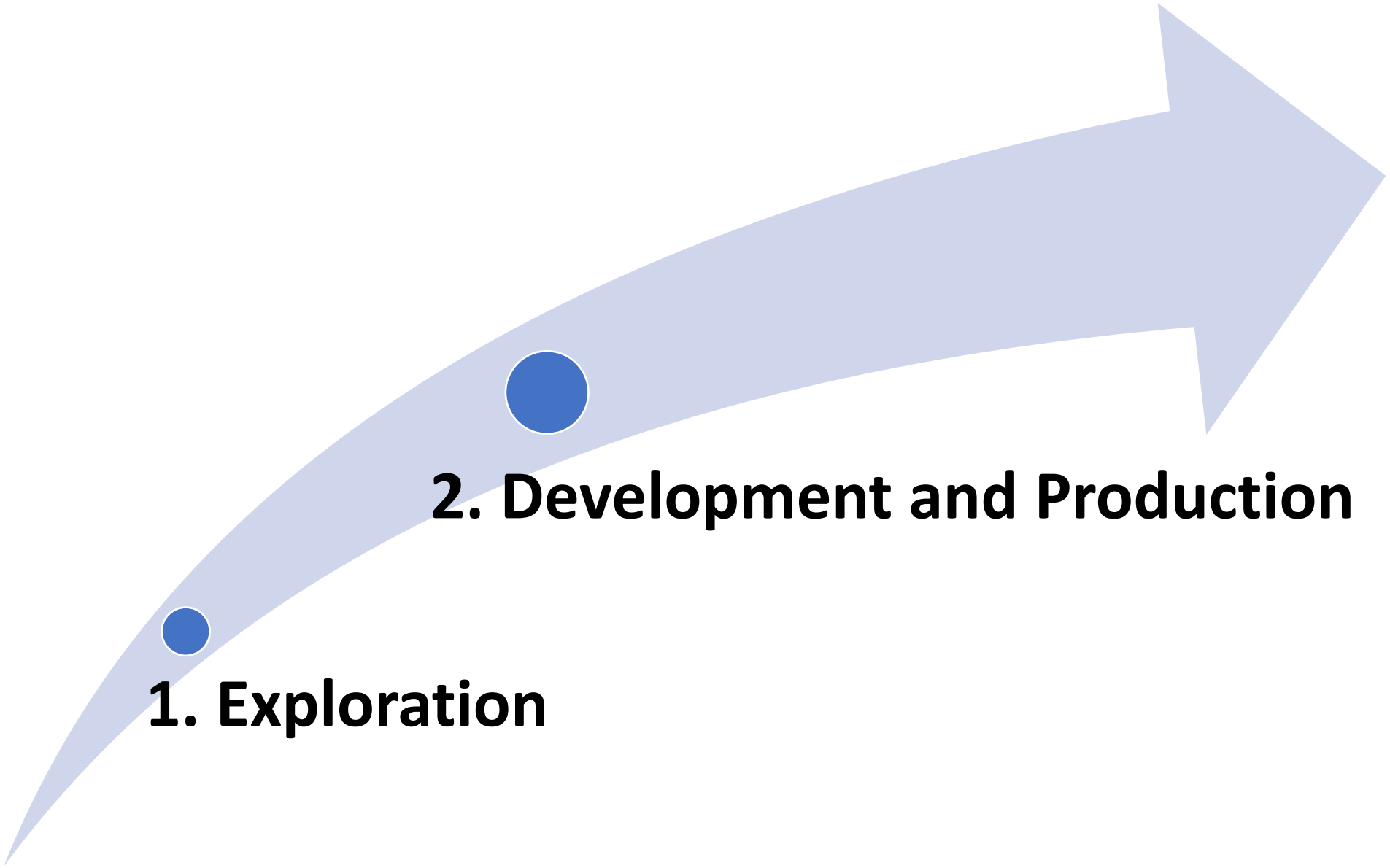
Produced Water

Disposals and Cuttings management

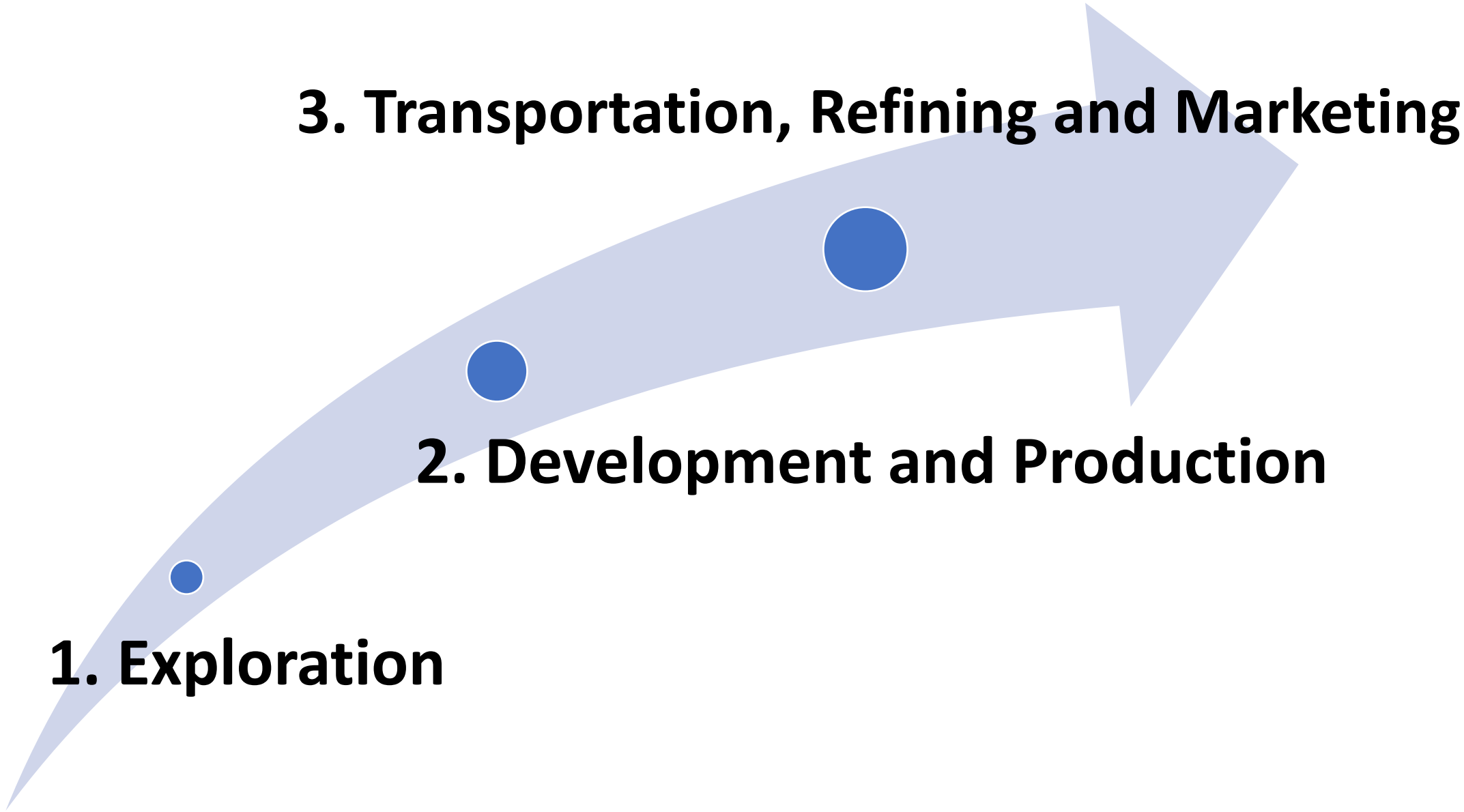
Oil and Gas Industry Chain Value

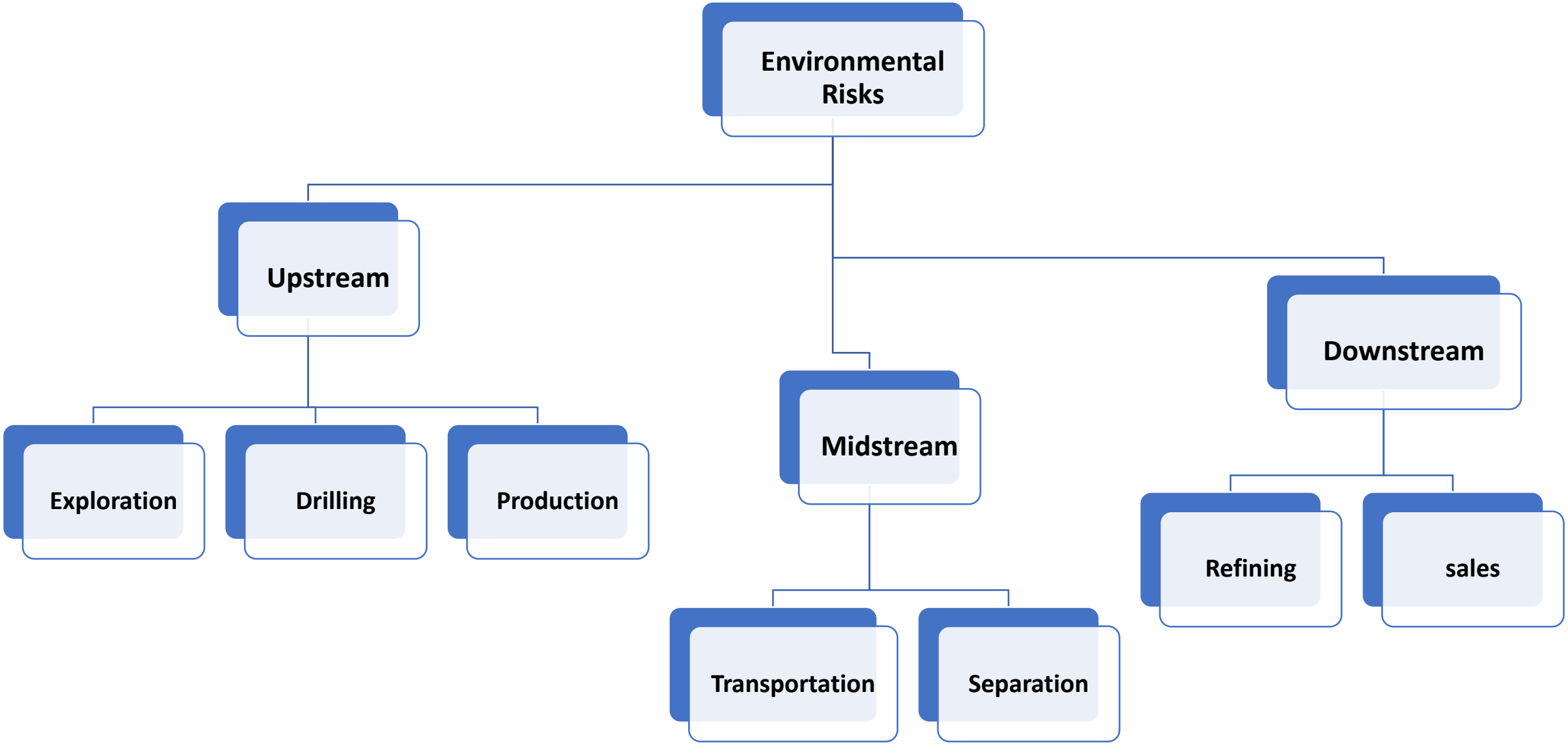


Oil and Gas Industry Chain Value

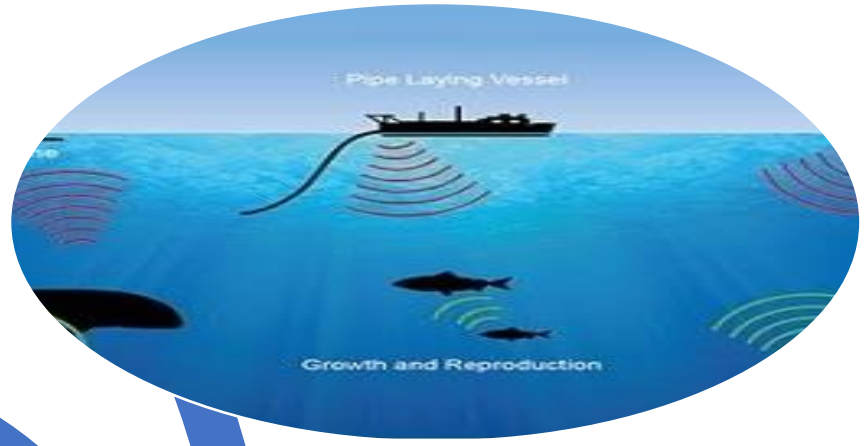


Oil and Gas Industry Chain Value



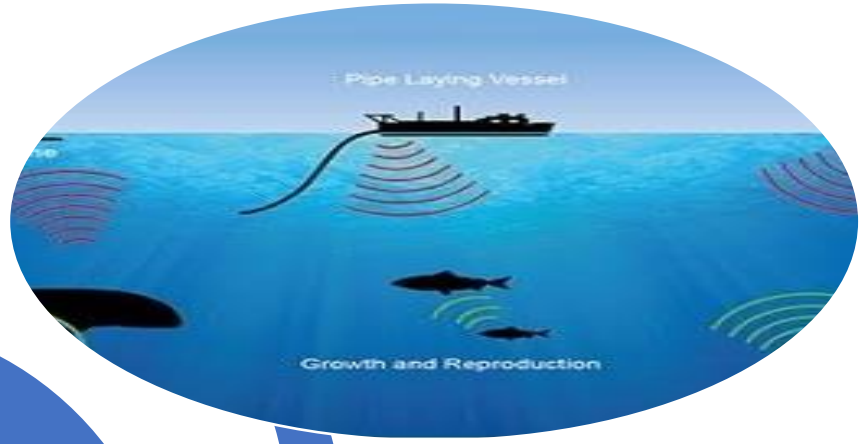

Environmental Risks
Upstream
Midstream
Downstream
Exploration
Drilling
Production
Transportation
Separation
Refining
sales

Environmental Risks

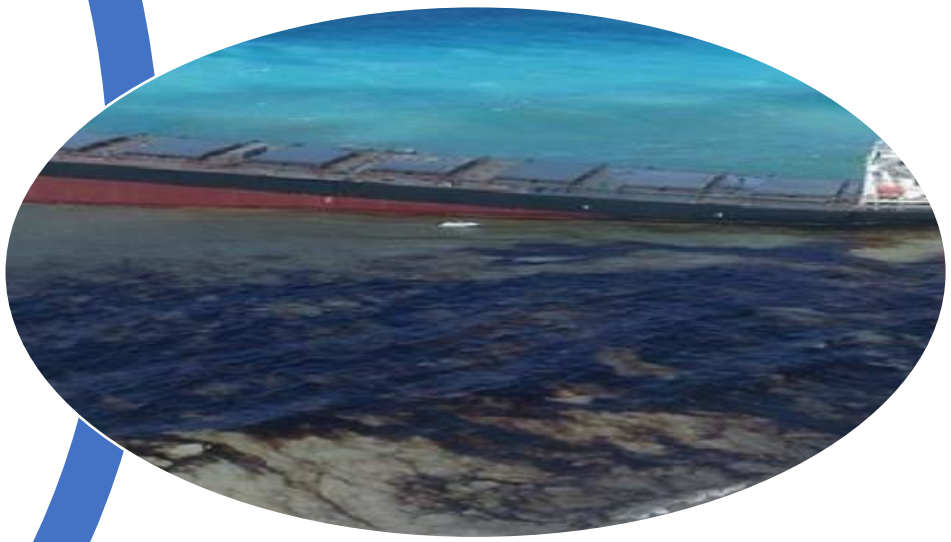


Marine Seismic Survey Noise

Environmental Risks

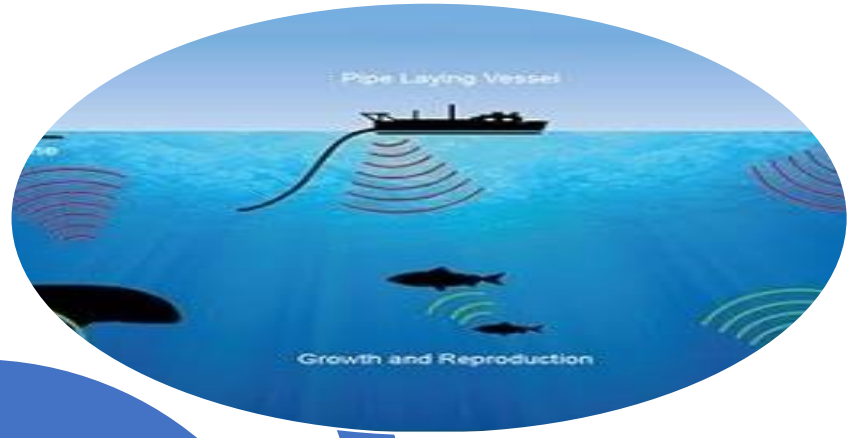


Marine Seismic Survey Noise

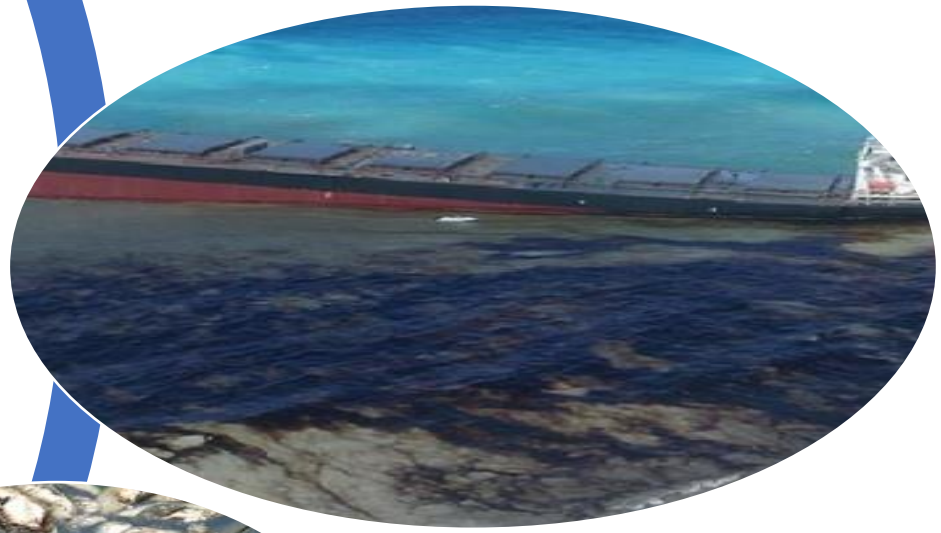


Hydrocarbon Spills

Environmental Risks



Marine Seismic Survey Noise



Hydrocarbon Spills

Marine Pollution by Ship Vessels

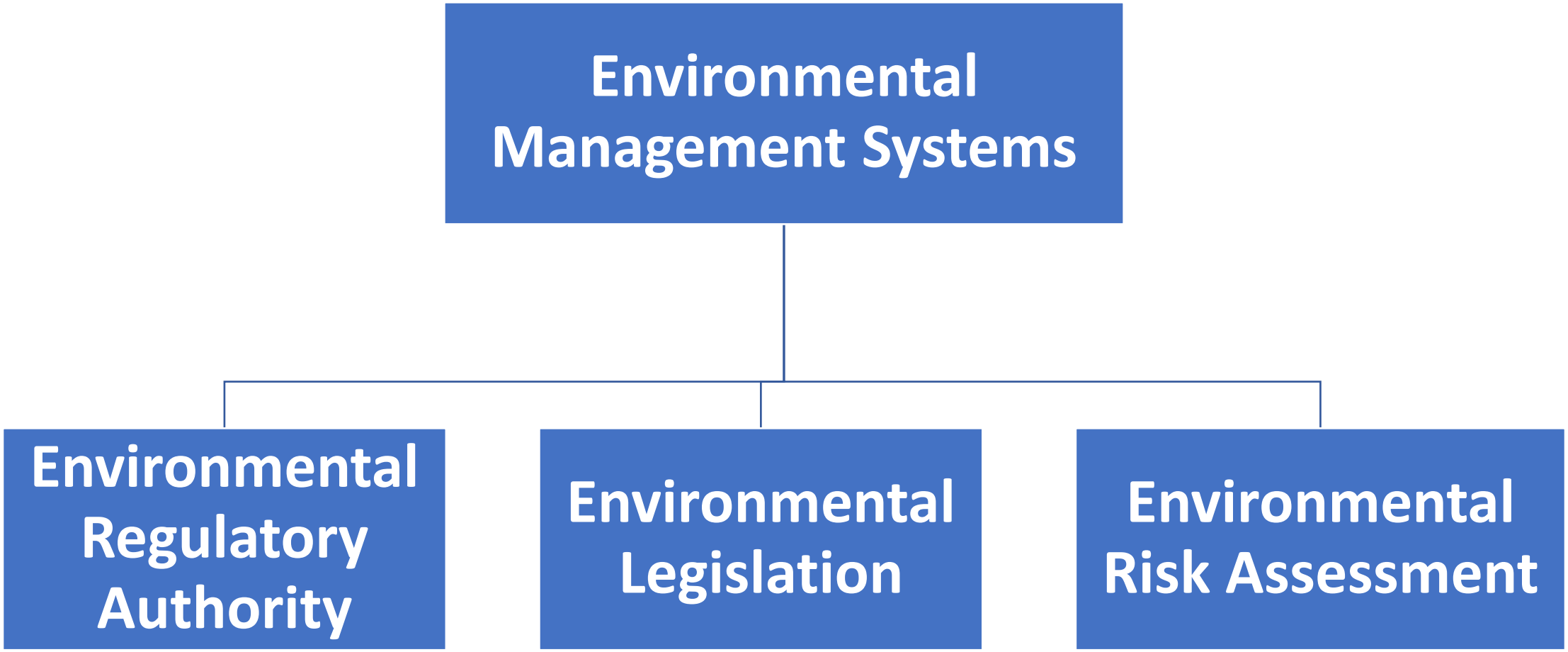
Environmental Risks

Atmospheric emissions

Water Contamination by Spills

Real Lebanese example: Jiyeh oil spill

International Oil and Gas Sector



Study case: Lebanese Oil and Gas Sector

MOE

Offshore Petroleum Resources Law No. 132/2010
Petroleum Activities Regulations Decree No. 10289/2013

MoUs and Monitoring Institutional Assessments

Environmental Management Systems with some Suggestions

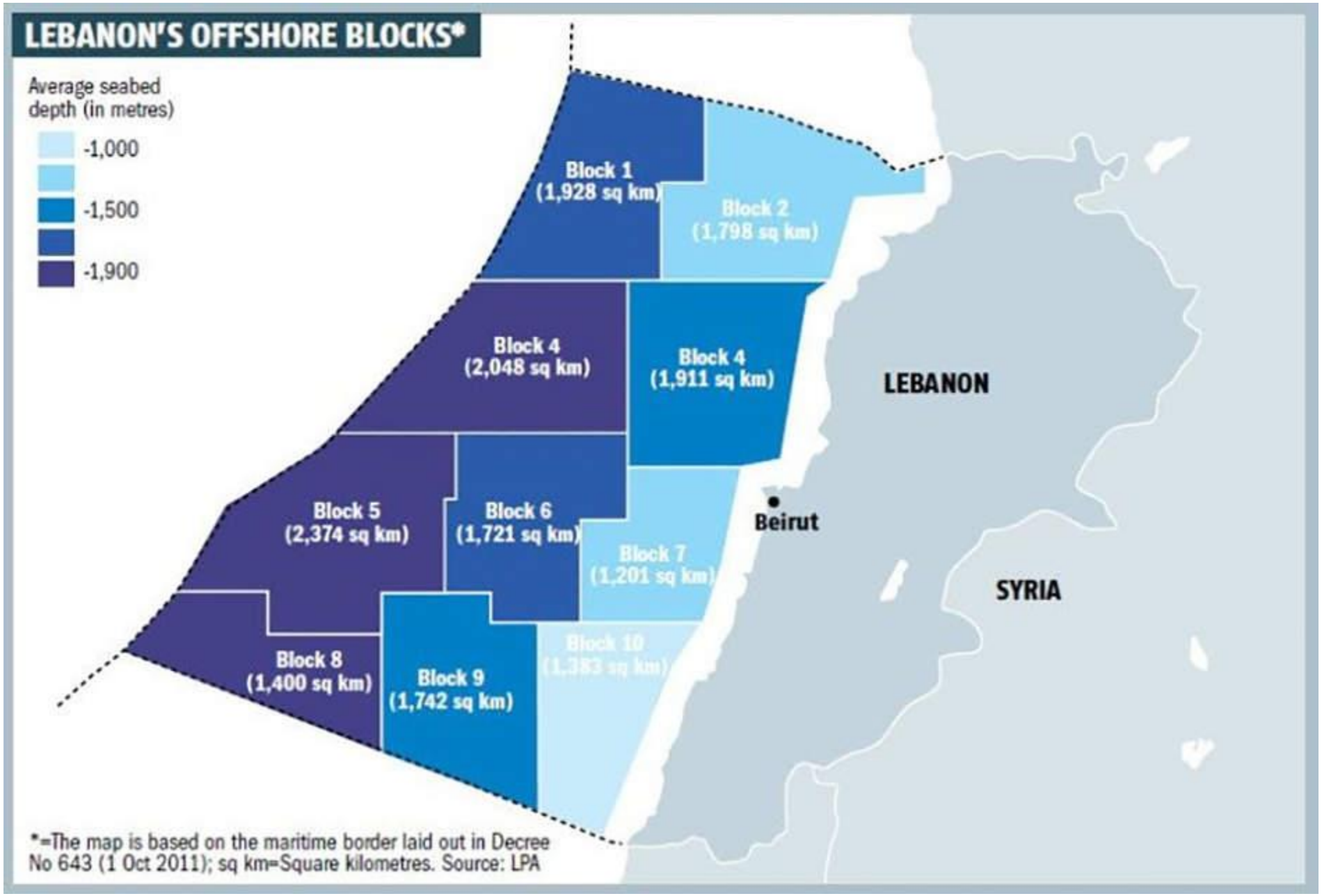
NL TC 67 committee

Others: Libnor…

Discharge permits, emissions permit, and waste disposal permits

OPRL and PAR

LPA

More support to strengthen the legal framework in line with the requirements of the oil and gas sector.

Thank you for your attention