How To Become a Practitioner: LO11 – Resilience, Risk & Continual Improvement

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What I will cover

- IEMA Practitioner Learning Outcome 11 Requirements

- Definitions: risks, opportunities and resilience

- Examples of tools, techniques, systems and practices that identify opportunities and risks

- How to cover LO11 within the Practitioner assessment of competence

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IEMA Practitioner Learning Outcome 11 Requirements

Learning Outcome (the learner will….)	Assessment Criteria (the learner will be able to demonstrate knowledge by…)	Prescribed Content (the learner will be familiar with…)
Resilience, Risk and Continual Improvement		
11. Apply or implement tools, techniques, systems and practices that identify opportunities and risks	11.1. Demonstrating selection and use of appropriate tools, techniques and systems to identify **risks and opportunities** 11.2 Showing how identifying and tackling risks to the delivery of products and services can achieve resilience in a changing and dynamic world	**Risks and Opportunities:** At an operational and organisational level, risks and opportunities to the environment, risks and opportunities presented by a changing environment

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Definitions

- Risk: Possibility of loss or injury

- Opportunity: Possibility to advance/do something favourable

- Resilience: the capacity to recover quickly/elasticity

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Risks

Risk	Operational level	Organisational level
To the environment/society	- Incomplete/absent procedures or training leading to risks of pollution and harm - Inefficiencies leading to waste of resources	- Lack of focus of leadership on environmental/social issues - Products/services with long term negative environmental/social impacts
From the environment/society	- Production issues due to lack of raw materials supply - Extreme weather disrupting supply chain	- Loss of profits due to shortages/disruption - Obsolete products/services - Legal/reputational harm

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Southern Water - £90 million fine for sewage pollution - 2021

Highest ever UK fine for environmental offences: £90 million (July 2021)

After pleading guilty to 6,971 unpermitted sewage discharges in Kent, Hampshire and Sussex and following 51 other guilty pleas between 2010-2015 for previous unpermitted discharges

Environment Minister Rebecca Pow said:

The findings in this case were shocking and wholly unacceptable. Water companies should not be letting this happen and those that do will be punished by the full force of the law.

This fine, the largest ever imposed on a water company, is absolutely appropriate and welcomed. It will rightly be paid solely from the company's operating profits, rather than customer bills.

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Bellway Homes – destroyed bat roost in Woolwich - 2020

Highest UK fine for wildlife offence £600,000

Bellway Homes also made voluntary donation of £20,000 to *Bat Conservation Trust*

The presence of *Soprano Pipistrelle* bats had been documented at a housing development site in Woolwich London in 2017 and Bellway Homes had been notified in planning documents that if they wished to carry out work they would need to first obtain the appropriate mitigation and a *Natural England European Protected Species licence*

Bellway Homes commenced demolition works without this licence

Sriracha hot sauce production suspended due to climate crisis

The hot sauce company reportedly doesn't have enough chili peppers due to "weather conditions"

Ethan Freedman Climate Reporter, New York • Friday 10 June 2022 09:26 • Comments

Sriracha hot sauce production is delayed due to a chili pepper shortage
(Getty Images)

London Fire Brigade had busiest day since World War Two, says London mayor

By Andre Rhoden-Paul & Doug Faulkner
BBC News

🕑 20 July

UK heatwaves

London wildfires: Family home of 27 years destroyed

London's fire service had its busiest day since World War Two dealing with multiple blazes in record-breaking temperatures on Tuesday, London Mayor Sadiq Khan has said.
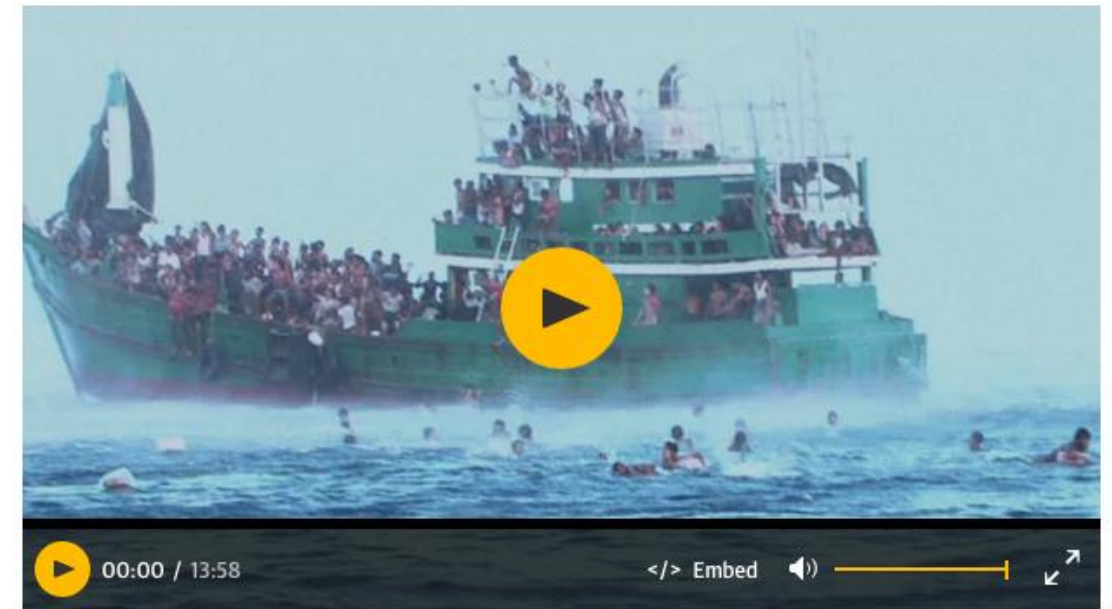
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Supply chain labour practices

Revealed: how the Thai fishing industry trafficks, imprisons and enslaves

Guardian investigation uncovers extensive role of authorities, fishermen and traffickers in enslaving thousands of Rohingya, who were held in deadly jungle camps

Thai fishing industry turns to trafficking: 'We witnessed girls being raped again and again' – video

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Opportunities

Desso (Netherlands-based global carpets company) in collaboration with Reststoffenunie (association of drinking water companies) found a way to upcycle re-engineered chalk ($CaCO_3$) waste from the drinking water treatment process into its carpet tiles (up to 20,000 metric tons per year)

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

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Opportunities

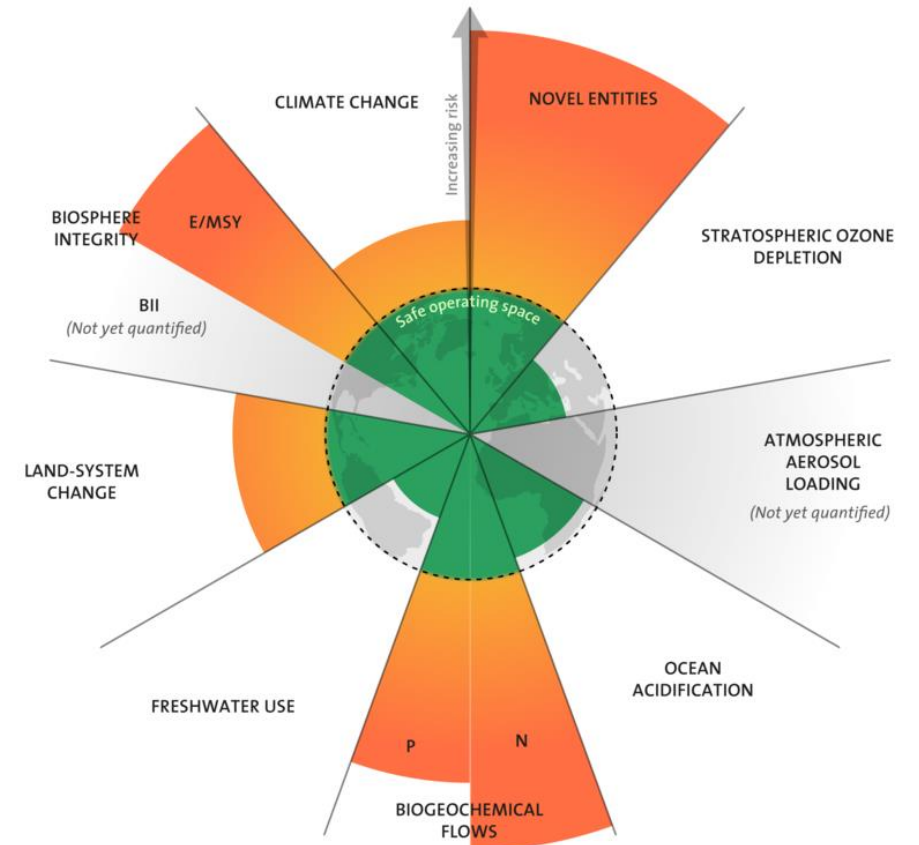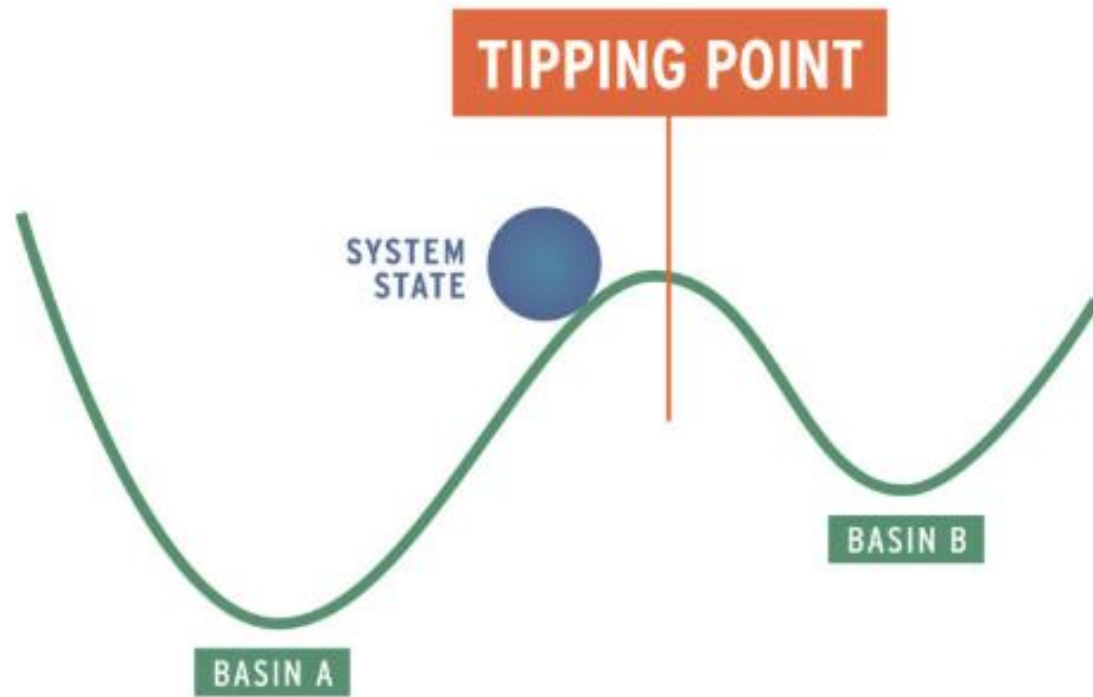**IEMA** Transforming the world to sustainability
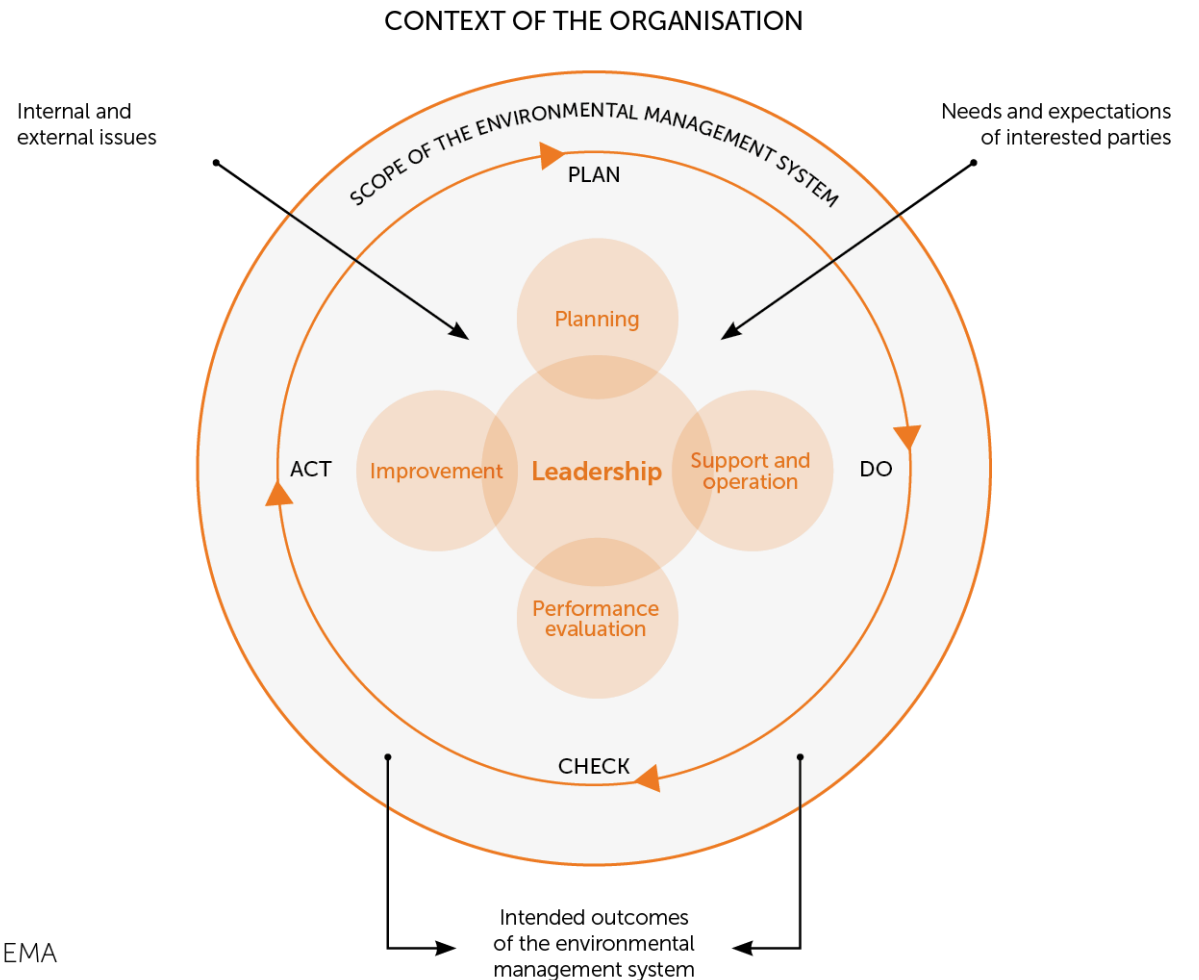
Resilience

Illustration by Andrew Bernier, adapted from Walker, B. & Salt, D. (2006) Resilience Thinking: Sustaining Ecosystems and People in a Changing World. Island Press: Washington, DC.

Examples of tools, techniques, systems and practices that identify opportunities and risks: **EMS**

Environmental Management Systems (e.g. ISO 14001:2015)

- Context

- Planning (aspects and impacts)

- Performance Evaluation (monitoring, measuring, analysis and evaluation; internal audits)

Source: IEMA

CONTEXT OF THE ORGANISATION

SCOPE OF THE ENVIRONMENTAL MANAGEMENT SYSTEM

Internal and external issues

Needs and expectations of interested parties

PLAN

Planning

ACT

Improvement   Leadership   Support and operation

DO

Performance evaluation

CHECK

Intended outcomes of the environmental management system

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Context analysis: PESTLE and SWOT

Political
- Tax policies
- Fiscal policy
- Trade tariffs
- Chang of government
- Local government policy
- (e.g. planning consents)

Economic
- Inflation rate
- Interest rates
- Foreign exchange rates
- Economic growth patterns

Social
- Cultural trends
- Demographics
- Employee expectations
- Population analytics
- Buying trends
- Seasonal behaviour

Technological
- Automotive
- Research and development
- Technical awareness in the market
- Impact of new media

Legal
- Consumer Laws
- Health and safety standards
- Labour laws etc.
- Trade barriers

Environmental
- Geographical location
- Climate change
- Environmental offsets
- Emissions legislation
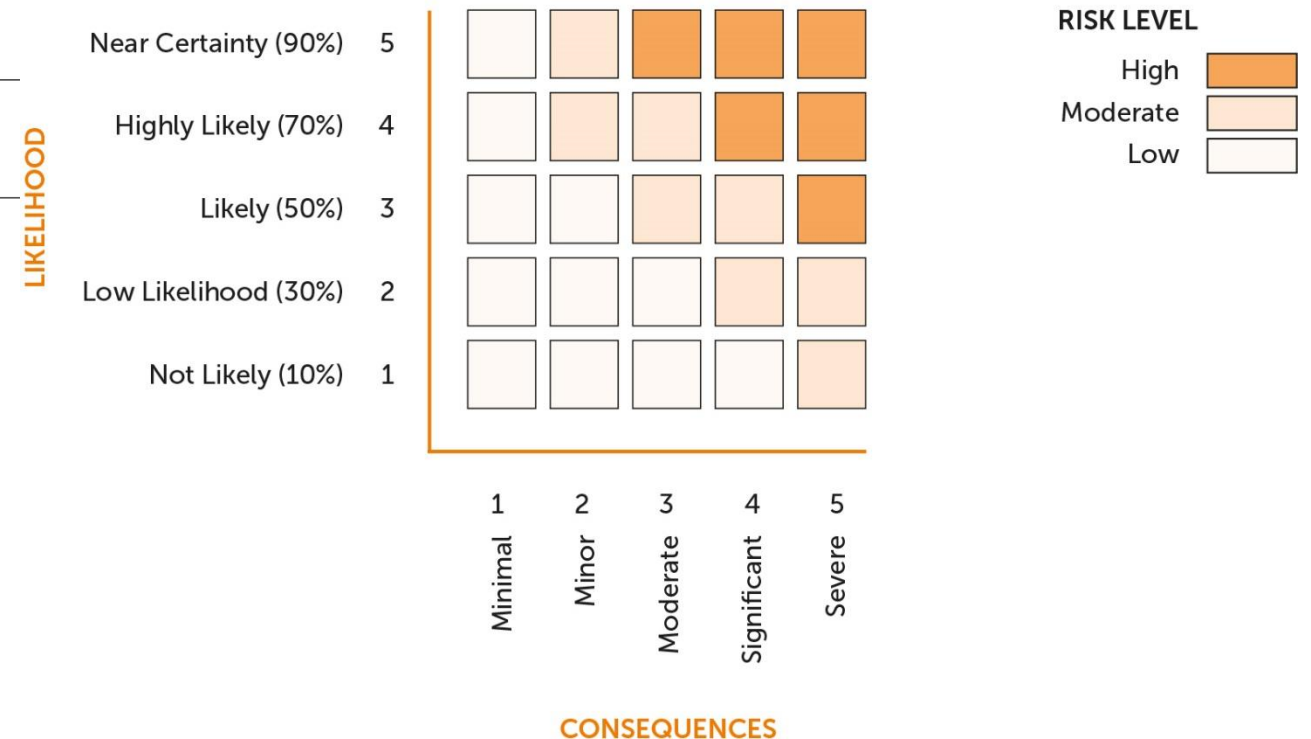- Green agenda

SWOT analysis of palm oil industry

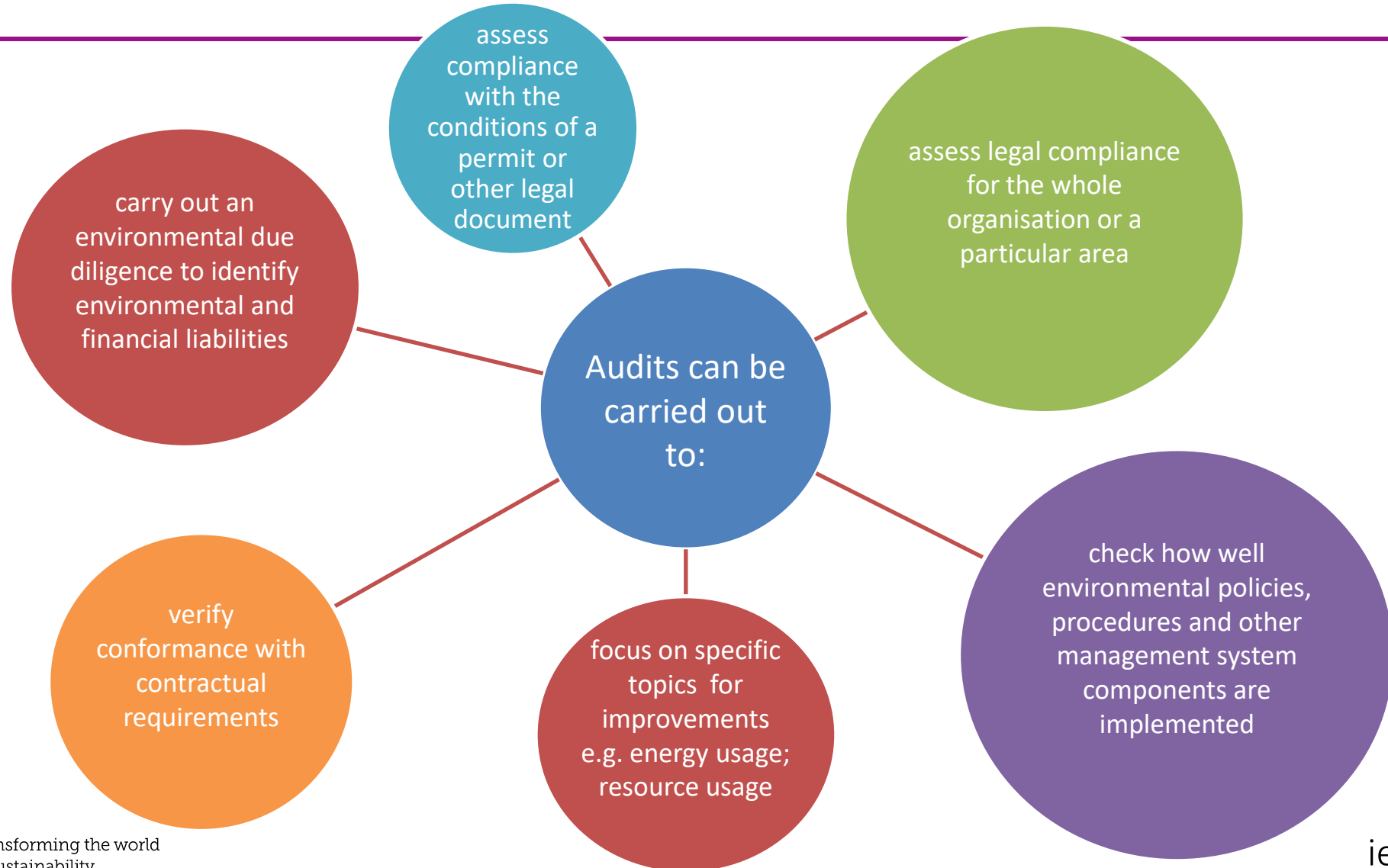|	Positive	Negative
Internal	**STRENGHTS** Job creation Local economic growth Experienced people managing the big businesses High profitability because of high local and international demand Good climate for increased production	**WEAKNESSES** Health hazards (smog, dust, noise, chemicals) Outsourcing labor that created conflict with/ in the company Soil erosion Cultural differences work (ie attitude towards works) Big numbers of competitors Weak payback to communities Uncertainties in job condition for the worker, etc...
External	**OPPORTUNITIES** Strong policy for regulating plantation University involvement in system improvement Strong demand for palm oil products Government provides conducive environment for investment Infrastructure development is one of the major focus of government NGO's denouncing the practices to ensure sustainable development Availability of organic farming method, etc...	**THREATS** Weak implementation monitoring (tax collection, community development, anomalies) Overlapping ownership of land (individuals) Forest/land fire Decreasing biodiversity Scarcity of water/water pollution/ sedimentation Multicultural conflicts between local and transmigrant High footprint of biofuels and competition for food oil Instability of political environment

Planning: Aspects and Impacts Assessment

A risk ratings matrix - Figure 1.4

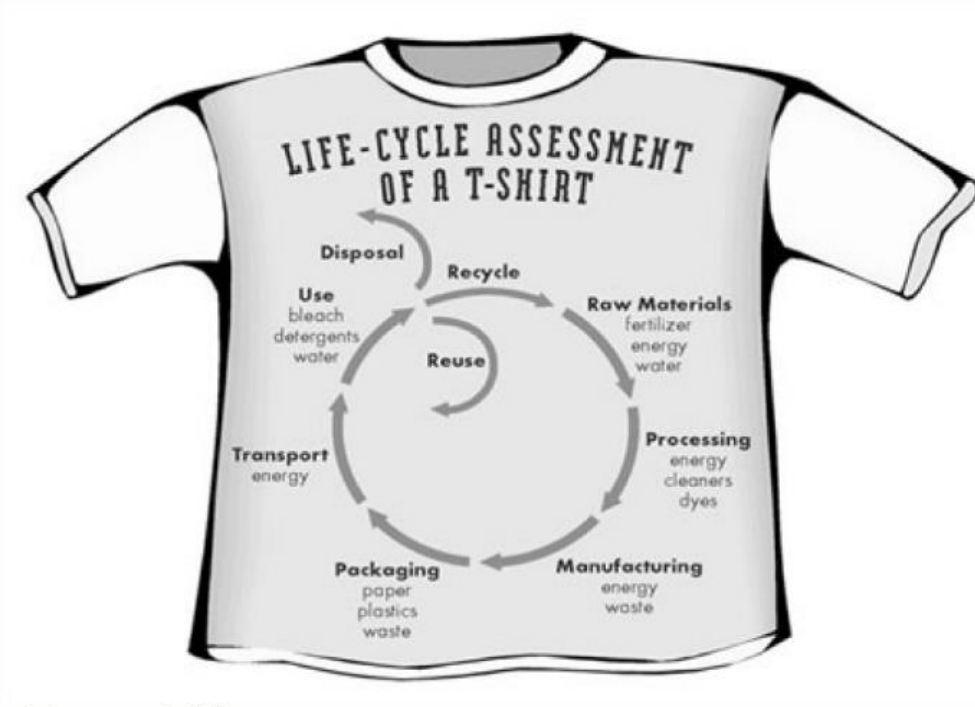|	
High	Not currently controlled In breach of legislation or policy Sensitive environment (groundwater proximity, conservation area, residential area) Repeated complaints
Medium	Not fully controlled under normal or abnormal conditions Above average probability of occurrence and/or low probability of detection Financial threat Rising concern of shareholders Complaint received
Low	Controlled under normal and abnormal conditions Low probability of occurrence and/or high probability of detection Minimal impact

Risk reporting matrix - Figure 1.3

RISK LEVEL

High
Moderate
Low

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Performance Evaluation: Environmental audits

assess compliance with the conditions of a permit or other legal document

carry out an environmental due diligence to identify environmental and financial liabilities

assess legal compliance for the whole organisation or a particular area

Audits can be carried out to:

verify conformance with contractual requirements

focus on specific topics for improvements e.g. energy usage; resource usage

check how well environmental policies, procedures and other management system components are implemented

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Examples of tools, techniques, systems and practices that identify opportunities and risks: **Life Cycle Assessment**

- Figure 1.18

Examples of tools, techniques, systems and practices that identify opportunities and risks: **Environmental Impact Assessment**
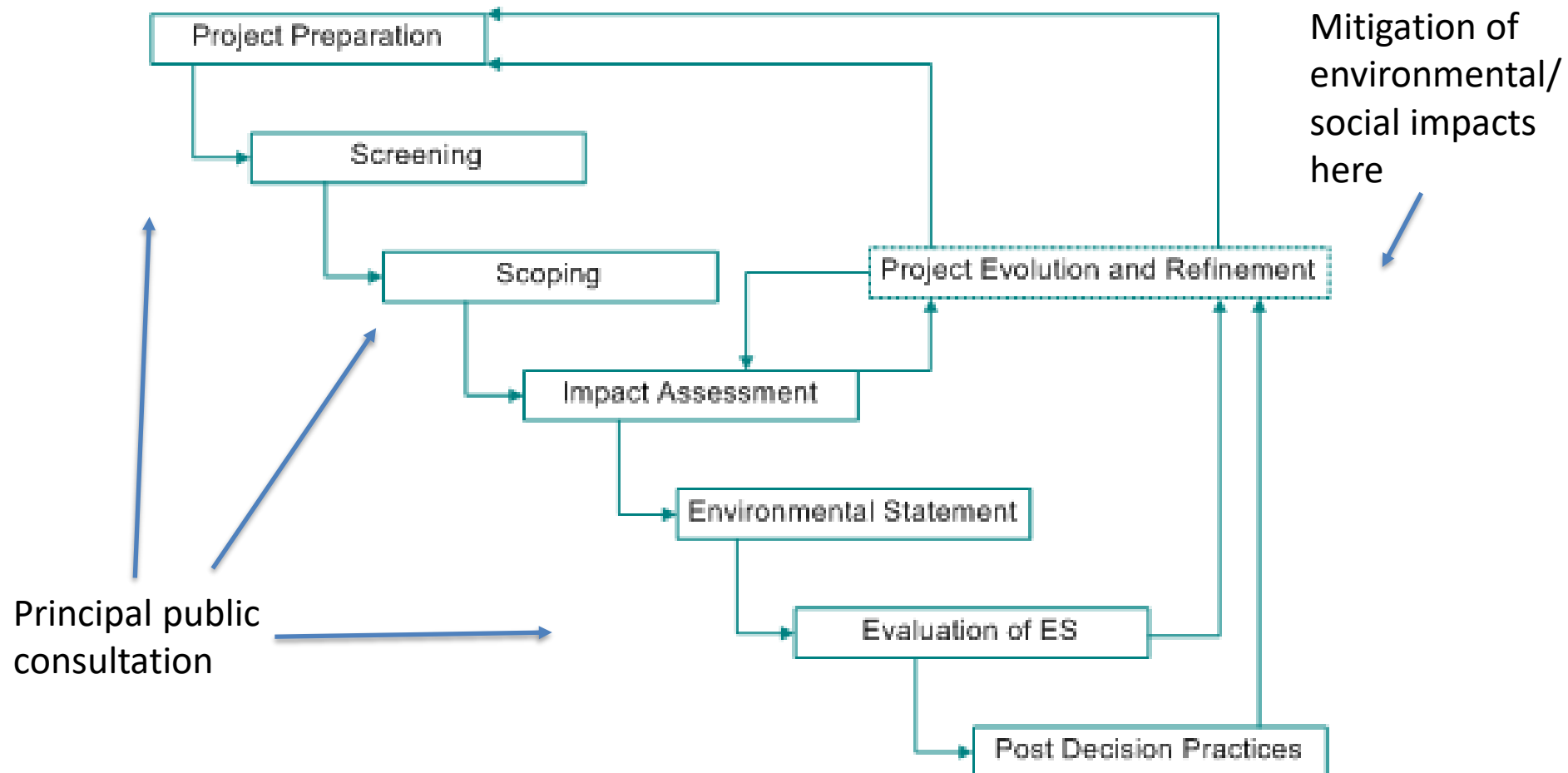
Project Preparation

Screening

Scoping

Project Evolution and Refinement

Impact Assessment

Environmental Statement

Evaluation of ES

Post Decision Practices

Mitigation of environmental/ social impacts here

Principal public consultation

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Examples of tools, techniques, systems and practices that identify opportunities and risks: Other
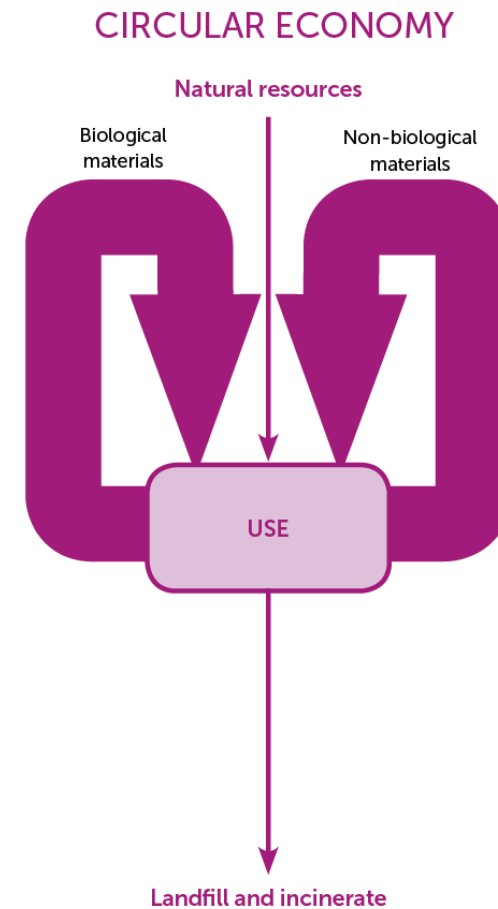
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How to cover IEMA LO11 within the Practitioner Assessment of Competence case studies

- Practitioner Assessment of Competence application asks for approximately four case studies to cover the range of 13 member competencies

- Important to clearly highlight multiple competencies within a case study to achieve this

- As we have already seen, LO11 naturally aligns with many other competencies

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Example experience to place as a case study

You are responsible for the EMS and this includes carrying out the context analysis and aspects and impacts assessment – automatically there is a link to LO5 (management and assessment tools) as well as LO11

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Example experience to place as a case study

Poor case study: Will note down the actions and processes only of doing this (very broadly LO5, 11 and maybe 9/10 but not really)

Situation: We were developing ISO 14001 and needed to complete all parts

Task: Carry out context assessment and aspects register

Action: I gathered the required personnel and chose the PESTLE method and risk scoring matrix, completed it ready for the next phase (explaining methodology of matrix here)

Result: Gained ISO certification with no non-conformances

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Example experience to place as a case study

How to improve this case study:

- Link it into learning outcome 1/3/4 – what were the significant areas noted in the PESTLE analysis/aspects and impacts register e.g. energy usage (climate change), oil storage (pollution, legal risks), waste management (resource scarcity)

- What specific actions were taken to reduce these risks and increase organisational/environmental resilience – operational controls, changes in products, innovations (linking to LO6 innovations; LO12 delivering projects that achieve performance improvement)

- LO10 – who was involved and how did their input benefit e.g. more buy in, understanding risks not noted before

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Example 2: EIA

A lot of Practitioners provide EIA examples. General points noted:

- A lot of technical information provided linking to legislation and processes required (covers LO4 and LO5)

- Less discussion of what significant impact areas were noted and mitigation measures put in place – this is an important part that is often missed. What did you find (e.g. noise risks to local population; wildlife areas potentially disturbed or removed) and how did you control it (screening via trees; liaison officers and communication methods with residents; noise monitoring; change to route to avoid habitats; innovative construction techniques to minimise impacts)

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Summary

LO11 Risks, Opportunities and Resilience links to most activities of IEMA Practitioners and all other learning outcomes.

So many tools, systems, practices to demonstrate this

Key for membership is articulating this within the assessment of competence

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Thank you