Hong Kong Institute of Environmental Impact Assessment
香港環境影響評估學會

FOTHERGILL Training & Consulting

HKIEIA 2022
EIA Webinar Series

Getting to Grips with *Climate Change* in EIA

Josh Fothergill FIEMA CEnv

26th July 2022

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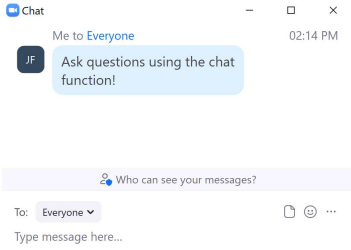
Welcome

Josh Fothergill FIEMA CEnv
Founder & Director
Fothergill Training & Consulting Ltd

& Housekeeping

Zoom delivery system

- Recording the session (available via YouTube within the next week)
- Questions via the Chat:



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EIA Webinar Series 2022

21 June	-	***Proportionate EIA*** ***[Recording available online]***
26 July	-	***EIA & Climate Change***
30 Aug	-	***Digital EIA***
11 Oct	-	***EIA and the SDGs***

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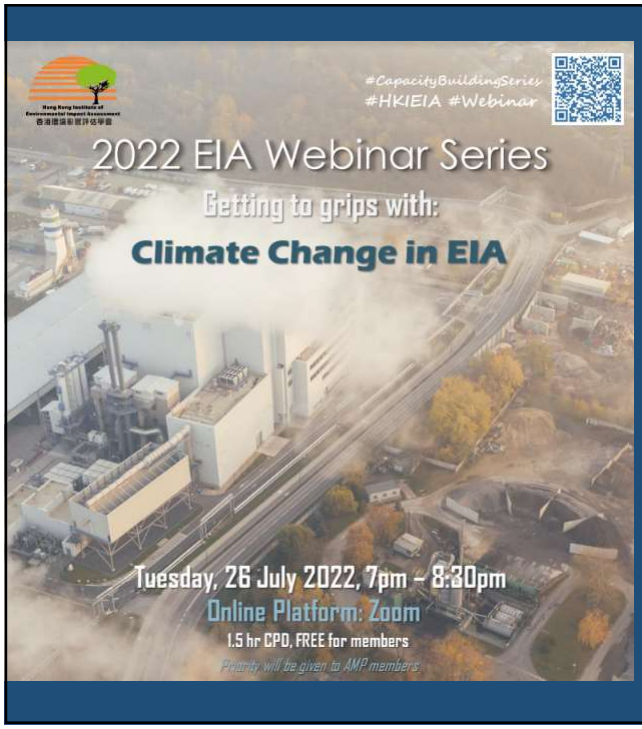

Outline:

- Climate Change & EIA Professionals
- Climate Change's inclusion as an element within EIA
- Hong Kong, Climate Change & EIA
- Getting to grips with CC in EIA practice
- Q&A session

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Climate Change and EIA *Professionals*

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This webinar assumes agreement across the audience on the following:

- Climate Change is real and scientifically agreed on
- Current warming trends are driven by human activities
- GHG emissions must peak & fall as soon as possible to limit impacts
- Impacts of changing climate already being seen across world
- A certain proportion of climate impact is now 'locked-in'

Note: **GHG = Greenhouse Gases**:
Carbon Dioxide, Methane, Nitrous Oxide, Fluorinated Gases

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IA Professionals Priorities
Plans / Projects & Climate Change

- Ensure Climate Change is being considered
  - Greenhouse Gas Emissions ("Carbon")
  - Resilience of project
  - Combined impacts project and CC on environment
- Engage and add value to the above discussions
- Utilise existing project activity related to understanding GHG emissions and climate related risks in IA process as needed
- Push for:
  - Strong application of GHG Mitigation Hierarchy
  - Further assessment of CC if you view approach being taken is not sufficient

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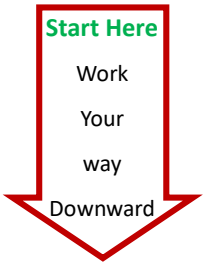
The Carbon Reduction Hierarchy
It has greater value at IA stage of a Project

PAS 2080: 2016

- Build Nothing
- Build Less
- Build Clever
- Build Efficiently



Or In broader terms

IEMA GHG Hierarchy (circa 2009)

- Eliminate
- Reduce
- Substitute
- Compensate

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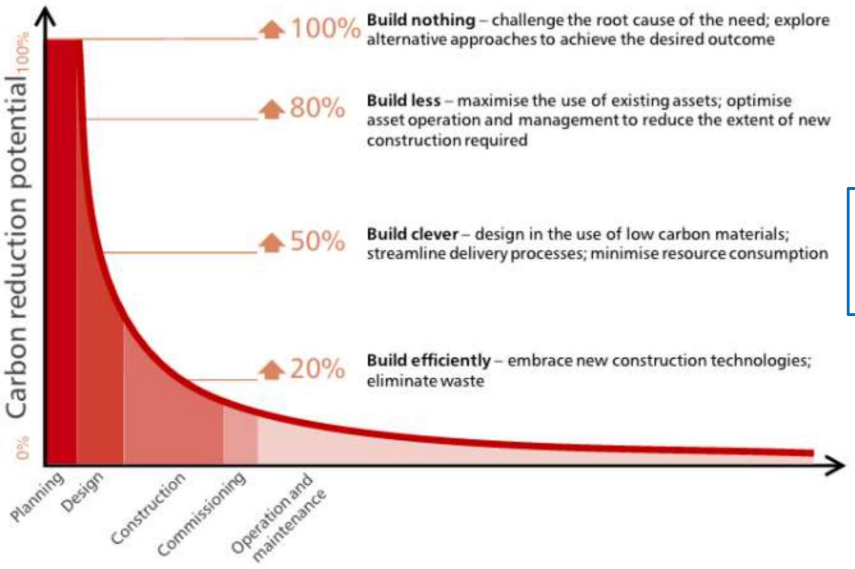
BSI PAS 2080 - Clause 6.1.4



Consider scale of future GHG challenge passing on to delivery – Easier vs Harder to reduce GHGs.

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The inclusion of

Climate Change

as an element in EIA

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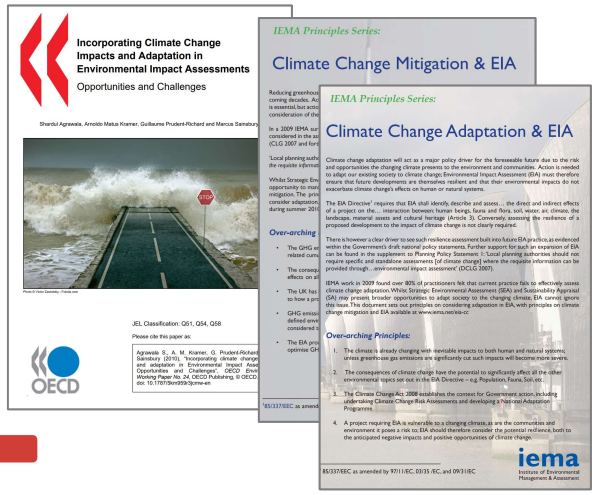
2010: A key year for pushing CC in EIA

- EU review on EIA Directive effectiveness notes need to improve focus on CC (Jul,**09**)
- Pfr Lord Stern wins IAIA Global Award
- 2 x IAIA Symposia on IA & CC in Washington DC and Aalborg
- IEMA launches first principles on GHG and CCA in EIA.
- OECD launches EIA & CC report: *Opportunities and Challenges*



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2013: The 'start' of CC & IA Guidance

- IAIA Global Best Practice Principles IA & CC launched (published 2012)
- IAIA FasTips on Climate Smart Decisions
- EC Guidance on:
  - CC in EIA
  - CC in SEA

Unfortunately, none of these early documents provided clear methods / step by step guidance…

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IAIA Best Practice Principles

- Original in 2012 as a result of discussions from 2010 symposia on IA & CC
- Updated in 2018:
  - Increasing focus on breadth of CC risks in terms of adaptation & resilience not just environment, but also:
    - **Development**
    - **Security** (of supply = water / food)
    - **Health** and
    - **Equity**

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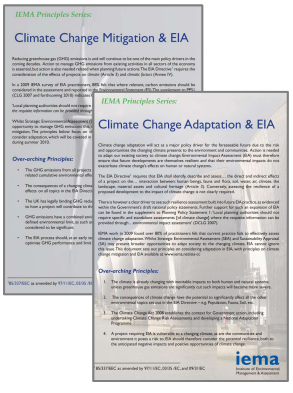
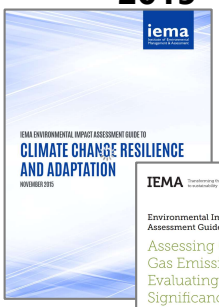
IEMA's leading role in CC & EIA Guidance

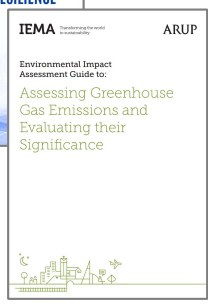
2010



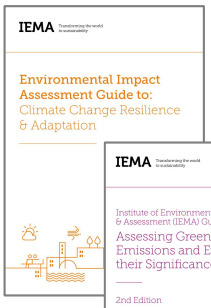
2015



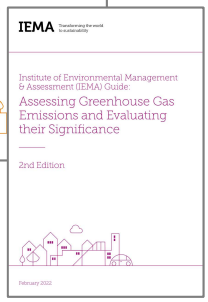
2017



2020



2022



- EIA + CCR&A '20: Updates = lessons learnt and case studies.
- EIA + GHG '22: Updates = lessons learnt and improved context

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In the EU Climate has been covered in the legislation since 2014 (…or before or after 2017…)

Article 3 of Directive 2011/92/EU as amended by **2014/52/EU**

1. The environmental impact assessment shall identify, describe and assess in an appropriate manner… the direct and indirect significant effects of a project on the following factors:

(a) human beings, fauna and flora population and human health;

(b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;

(c) land, soil, water, air and **climate** and landscape;

(d) material assets, cultural heritage and the landscape;

(e) the interaction between the factors referred to in points (a) to (d).

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CC in EIA
Some Approaches Beyond Europe

***Canada**: Impact Assessment Act (2019)*

Section 22(1)(b)(i) requires the body conducting the assessment to consider the extent to which the project may contribute to / hinder Canadian Government's ability to meet its obligations and commitments in respect of climate change.

Section 63(e) provides that in granting Ministerial approval to an EIA project the Minister must consider extent the project may contribute to / hinder Canadian Government's ability to meet its obligations and commitments in response of climate change.

Published *Strategic Assessment of CC Guide* *- October 2020, reviewed every 5yrs*

***Australia**: Brought in @* State level - Federal EIA has restricted scope

Western Australia EIA includes GHG emissions under Air.

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CC within ESIA
Development Financing + Support

Examples:

- DFID – embedded CC trained staff
- NCEA – capacity building
- World Bank ESF Vision for SD:

"within the parameters of a project, the Bank seeks to:

- *Address **project-level impacts on climate change** and **consider the impacts of climate change on** the selection, siting, planning, design and implementation and decommissioning of projects*

*"The **environmental and social assessment**, informed by the scoping of the issues, will take into account all relevant environmental and social risks and impacts of the project, including:*

(a) Environmental risks and impacts, including:

*(iii) **those related to climate change**…"*

***ESS3** – Resource Efficiency & Pollution Prev+Mgnt:*

***ESS4** – Community Health and Safety*

***ESS6** – Biodiversity Conservation & Sust Mngt living Nat Systems*

EIA & CC workshop – Amman (July'22)

NCEA, GIZ and Ministry for Environment of Jordan

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Hong Kong

Climate Change and EIA

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Serious flooding of coastal areas

2018: Heng Fa Chuen during Super Typhoon Mangkhut

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CC Vulnerability Assessment (ERM for EPD 2010)

A Study of Climate Change in Hong Kong - Feasibility Study – Apdx C:

Defining Consequence

Consequence	Definition
High	Likely[1] to cause: • Serious loss of life and limb (over 100 affected) • Creation of large number of permanent or temporary climate change refugees (over 5,000 people) • Permanent loss or irreversible change to ecosystem or majority of component species • Permanent loss of majority of sector revenue • Destruction or serious damage to key assets • Serious interruption to sector activities for over 1 month
Medium	Likely to cause: • Some loss of life and limb (over 10 affected) • Creation of permanent or temporary climate change refugees (<5000 people) • Permanent loss or irreversible change to some component species within ecosystem • Permanent loss of minority of sector revenue, temporary loss of majority of sector revenue • Damage to key assets • Interruption to sector activities for over 1 week
Low	Likely to cause: • Risk of non life threatening injury • Creation of temporary climate change refugees (0-500) • Temporary damage, reversible change to ecosystem, loss of small number of component species • Temporary loss of minority of sector revenue • Minor damage to assets • Minor interruption to sector activities for < 1 week

Defining Likelihood

Likelihood	Definition
High	Likely [(a)] to occur several times a year
Medium	Likely to occur on an annual basis
Low	Likely to occur on a decadal basis

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Human Health – **Medium / High Vulnerability**

- Increase in surface temperature;
- Changes in precipitation patterns;
- Changes in frequency and/or severity of extreme climate / weather
- events;
- Decreased global solar radiation;
- Changes in the survival of some pathogens and disease patterns;
- Changes in respiratory, vector-borne, water-borne and food-borne diseases;
- Impacts on health and external infrastructure; and,
- Health and safety of workforce and the general population.

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Biodiversity – **High vulnerability**

- Increase in surface and sea surface temperatures;
- Changes in frequency and/or severity of extreme weather events;
- Changes in precipitation patterns;
- Ocean acidification;
- Onset of hypoxic conditions;
- More frequent hyposaline events;
- Changes in terrestrial and marine species distribution/occurrence;
- Changes to Montane habitat;
- Changes in Hong Kong ecological communities;
- Wash out of streams;
- Increased risk of storm damage to woodlands; and
- Changes in the size of intertidal habitats and sedimentation rates due to sea level rise.

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Built Environment – **Medium / High Vulnerability**

- Increase in surface temperatures;
- Changes in frequency and/or severity of extreme weather events;
- Changes in precipitation patterns;
- Sea level rise;
- Impacts on the building stock and slope stability;
- Impacts on transport, communication and drainage (including stormwater drainage, sewerage systems and wastewater treatment facilities) infrastructure; and,
- Health and safety of workforce, building occupants and tenants.

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Climate Change's influence in Hong Kong

Recent climatic extremes

2020: **Recorded 47 "very hot days"** (>=33C)

Beyond previous worst-case projections for 2030 (40days) or 2040 (46 days)

<u>Forecasts</u> – IPPC AR6 (Aug 2021)

Annual mean sea level in 2100 likely to rise 0.37m - 1.08 m relative to '95-14 average (SSP2-4.5 low – SSP5-8.5 high)

Temperature will rise with more and higher periods of intense heat

It will be wetter by end of century 7-10% more rainfall, but distribution of this is less clear

Global mean tropical cyclone intensity is likely to increase

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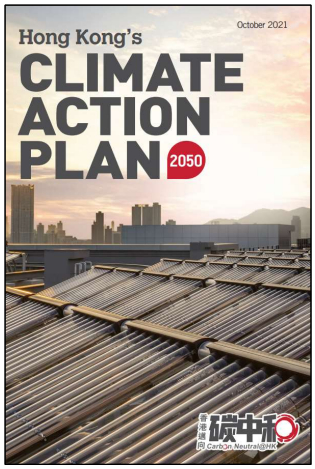
Hong Kong's Climate Change Action Plan

"***Hong Kong will strive to achieve carbon neutrality before 2050***"

HK Chief Executive 2020 Policy Address - November 2020



Headline Targets

- <2035 = 50% reduction carbon emissions vs 2005
- <2050 = Hong Kong is carbon neutral

Four key strategies

- Net-zero Electricity Generation
- Energy Saving and Green Buildings
- Green Transport
- Waste Reduction

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HKCC Action Plan provides areas IA can test beyond GHG targets

Carbon Neutrality of strategic growth areas

- New Territories North, and
- Artificial islands in the Central Waters

- New development areas - build low-carbon liveable communities, incl:
  - Direct Cooling Systems,
  - Green and Sustainable Design - reducing energy consumption,
  - providing railway services, and
  - Installing charging networks for EVs at an early stage.

- Save energy through proper land use planning
  - Building layout,
  - Green public mobility options (e.g. walking and cycling), and
  - setting up waste separation and recycling facilities in communities

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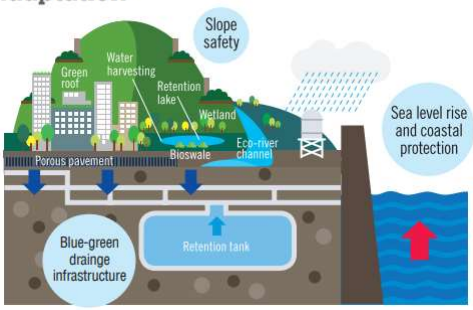
HKCC Action Plan

Adaptation



Resilience

Prepare for emergencies

Deal with extreme heat

Raise community awareness

What are the implications of:

increases in typhoons, landslides, floods (both storm surges and rainstorms), droughts, future sea level rise, extreme heat

to the environmental receptors considered under the *EIA Ordinance*?

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EIA Ordinance Current definitions re: Lack of **direct** GHG and CC coverage

environment (環境)—
(a)means the components of the earth; and
(b)includes—
(i)land, water, air and all layers of the atmosphere;
(ii)all organic and inorganic matter and living organisms; and
(iii)the interacting natural systems that include any of the things referred to in subparagraph (i) or (ii);

environmental impact (環境影響), for a designated project, means—
(a)an on-site or off-site change that the project may cause in the environment;
(b)an effect of the change on—
- (i)the well-being of people, flora, fauna and ecosystems; (Amended E.R. 1 of 2021)
- (ii)physical and cultural heritage;
- (iii)a structure, site or other thing that is of historical or archaeological significance;

(c)an on-site or off-site effect on any of the things referred to in paragraph (b) from activities carried on for the project;
(d)a change to the project that the environment may cause, whether the change or effect occurs within or outside the site of the project;

Indirect CC coverage

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Climate Change in the future HK EIA Ordinance?

Not my place to seek to direct this in Hong Kong!

GHGs
I understand there are existing tools which help ensure GHG considerations factors in the design and consenting process.

CCR&A
However, within existing EIA Ordinance environmental topics:

- How might CC impacts affect the receptor into future?

and

- Could considering the effects of the project + CC impacts on a receptor change the significance of the EIAs findings?

Answering these forms an increasing component of good international EIA practice.

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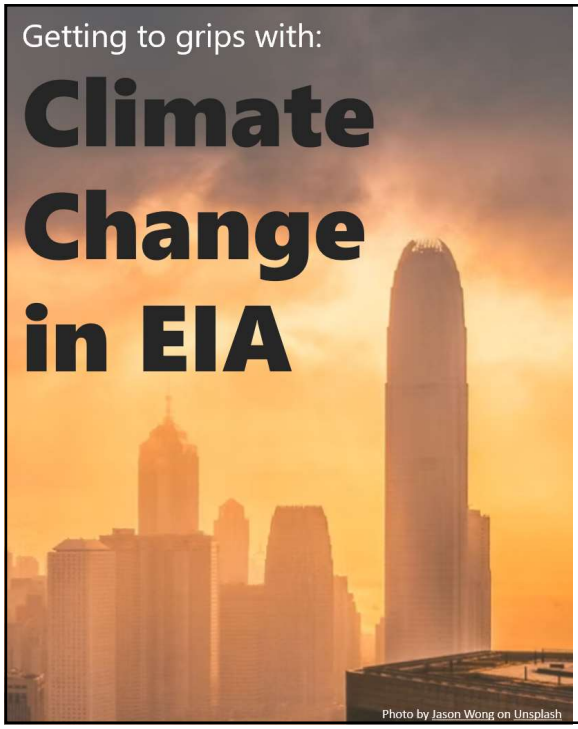

Getting to grips with Climate Change in *EIA Practice*

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Getting to grips with CC in EIA

Consideration of climate change in EIA is generally found to relate to three areas of risk:

- The development's GHG emissions
- The development's risks from / resilience to CC effects
- The combined effect of CC and the Development on other (traditional) Environmental receptors

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Climate Change (GHG) + EIA
An increasing area for legal challenge

- European Court of Justice (C-121/21 R) Czech Republic v Poland
  - Extension of life of lignite mine permission without EIA
  - Interim Ruling (May'21) immediately cease lignite extraction @ Turow mine
  - Failed to comply (Sept'21) imposed penalty Euro 500,000/day
  - Final Ruling Feb'22, but… currently only available in French and Polish.
- UK cases related to both Heathrow and Stanstead airport expansions and the M4 Relief Road (S.Wales)
- Mar'22: **Breadth of GHG assessment in UK EIA** (Finch vs Surrey CC). Oil well, permission, EIA's GHG assessment only considered those within site not usage of extracted oil. Judge dismissed appeal stating:

"*the necessary causal connection between the proposed development and the impacts of 'scope 3' emissions was absent* ***in this case***"

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Considering GHG Emissions in EIA practice

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Scoping the EIA's GHG assessment
Scope and Boundary decisions

Increasingly expectations in EIA Good Practice around GHG that the assessment moves beyond the simpler calculations of construction and operation emissions to an estimation of the ***whole life carbon effect***.

This pushes further into considering Scope 3 emissions:

- **Scope 1** = Direct Emissions from operations of development.
- **Scope 2** = Indirect GHG emissions from purchased power related to development (electricity, heating, colling, etc)
- **Scope 3** = All indirect emissions (not included in scope 2) that occur in the value chain of the development, both upstream and downstream.

The assessment of GHG in EIA therefore needs a justified ***System Boundary*** and a clear explanation of life cycle stages scoped in.

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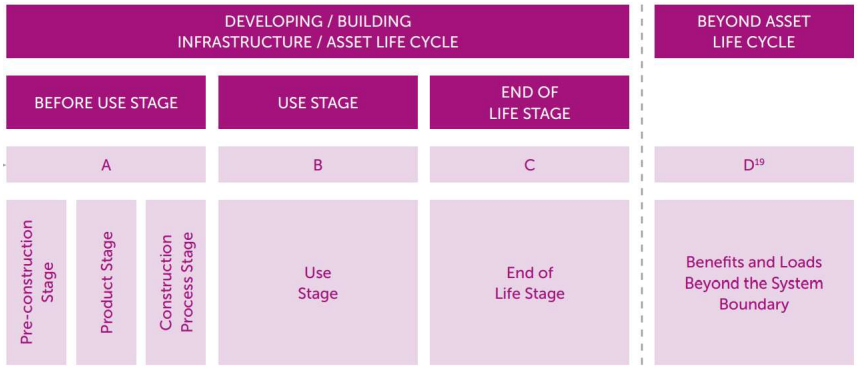
PAS 2080: Modular Approach to GHG Ast Systems Boundary and life cycle stages



Certain life cycle stages may be excluded to deliver proportionate EIA, but must be professionally justified and transparently explained.

Multiple GHG assessment demands can exist for a project - Sensible seek a single approach with the scope to provide evidence for all requirements.

Example: UK from both EIA + CEEQUAL / BREEAM.

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Defining the GHG baseline now <u>and</u> in the future is important

The GHG baseline provides the point from which the project's net GHG impacts are assessed from and reported against.

Two approaches can be applied, sometimes both are needed:

i. Those GHG emissions within the defined assessment boundary without the proposed project.

ii. GHG emissions from a 'standard' project of the type proposed.

Future baseline should consider operational <u>and</u> user emissions without the proposed development.

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Assessment and Significance of GHG in EIA

Assessment requires collection of data on materials sources of GHG within scope, confirmation of emission factors (e.g. grid electricity, construction materials, transport) and calculation of GHG inventory.

- ***Uncertainty*** in data / methods can be handled via sensitivity testing

GHG Significance – challenge for EIA, but gaining clarity (IEMA'22)

- all new GHG emissions contribute to –ve environmental impact; but a project may replace activity that had higher GHG profile.
- GHG Significance therefore based on net impact over its life-time.
- GHG targets enable EIA significance to move from consideration at global scale to a more practical basis for significance evaluation.

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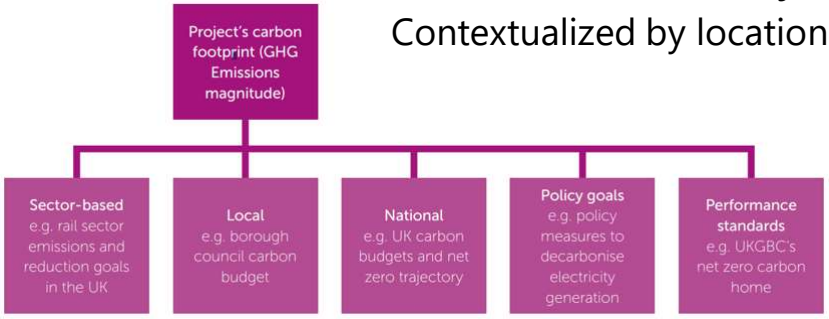
EIA - GHG Significance 1

EIA GHG significance not about:

- whether the project emits GHG emissions,
- the magnitude of its GHG emissions alone

Effective evaluation project GHG significance in EIA is demonstrating how it contributes to *reducing GHG emissions relative to a comparable baseline consistent with the relevant net zero trajectory by xx date*

Contextualized by location, sector, city, etc.



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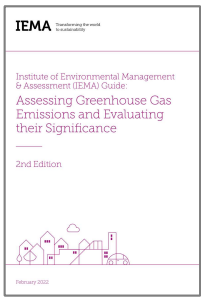
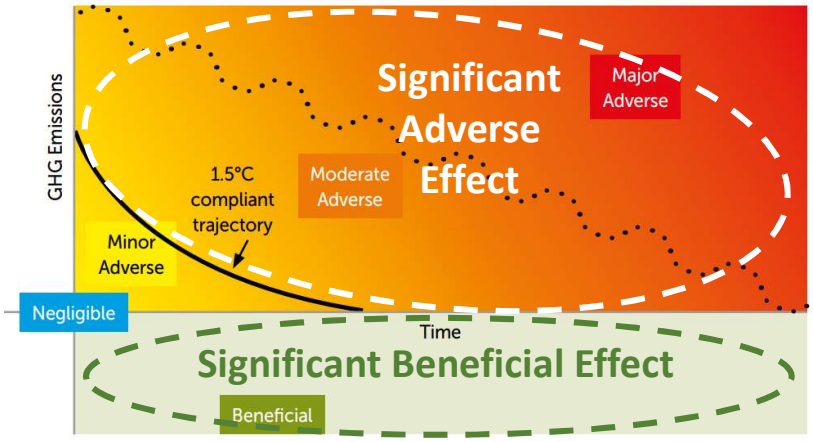
EIA - GHG Significance 2





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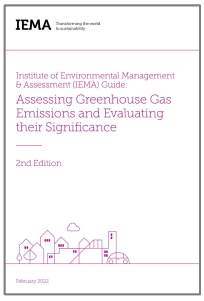
EIA - GHG Significance 3

Major adverse - locks in emissions + makes no meaningful contribution towards net zero trajectory:

- the project's GHG impacts are not mitigated or
- GHG impacts are only compliant with do-minimum standards set through regulation, and do not provide further reductions required by existing local and national policy for projects of this type.



Moderate adverse - falls short of fully contributing to the (UK's) trajectory towards net zero.

- the project's GHG impacts are partially mitigated
- Partially meet applicable existing / emerging policy requirements but don't fully contribute to decarbonization in line with local / national policy goals for projects of this type.

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Examples of

GHG in EIA Guides

(and other tools)

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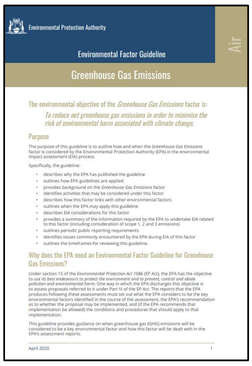
Western Australian's Approach


Environmental Protection Authority
Environmental Factor Guideline
Air
Greenhouse Gas Emissions

The environmental objective of the *Greenhouse Gas Emissions* factor is:

To reduce net greenhouse gas emissions in order to minimise the risk of environmental harm associated with climate change.

Purpose

The purpose of this guideline is to outline how and when the *Greenhouse Gas Emissions* factor is considered by the Environmental Protection Authority (EPA) in the environmental impact assessment (EIA) process.

Specifically, the guideline:

- describes why the EPA has published the guideline
- outlines how EPA guidelines are applied
- provides background on the *Greenhouse Gas Emissions* factor
- identifies activities that may be considered under this factor
- describes how this factor links with other environmental factors
- outlines when the EPA may apply this guideline
- describes EIA considerations for this factor
- provides a summary of the information required by the EPA to undertake EIA related to this factor (including consideration of scope 1, 2 and 3 emissions)
- outlines periodic public reporting requirements
- identifies issues commonly encountered by the EPA during EIA of this factor
- outlines the timeframes for reviewing this guideline.

Why does the EPA need an Environmental Factor Guideline for Greenhouse Gas Emissions?

Under section 15 of the *Environmental Protection Act 1986* (EP Act), the EPA has the objective to *use its best endeavours to protect the environment and to prevent, control and abate pollution and environmental harm*. One way in which the EPA discharges this objective is to assess proposals referred to it under Part IV of the EP Act. The reports that the EPA produces following these assessments must set out what the EPA considers to be the key environmental factors identified in the course of the assessment, the EPA's recommendation as to whether the proposal may be implemented, and (if the EPA recommends that implementation be allowed) the conditions and procedures that should apply to that implementation.

This guideline provides guidance on when greenhouse gas (GHG) emissions will be considered to be a key environmental factor and how this factor will be dealt with in the EPA's assessment reports.

April 2020 1

- Credible estimates lifetime emissions: Sc1,2+3
  - Annual & Total
  - Breakdown of key sources
  - Projected emissions intensity vs benchmark
- GHG Management Plan, **minimum coverage**
  - Intended lifetime reductions Scope 1 emissions
  - Interim and long-term targets related to above
  - Strategies demonstrating all reasonable and practical GHG hierarchy applied
- Measures to Avoid, Reduce and Offset GHG emissions
  - Best practice design vs comparable facilities
  - Continuous improvement to reduce emissions over time
  - GHG emissions offsetting package for some / all residual emissions.

Common Challenges

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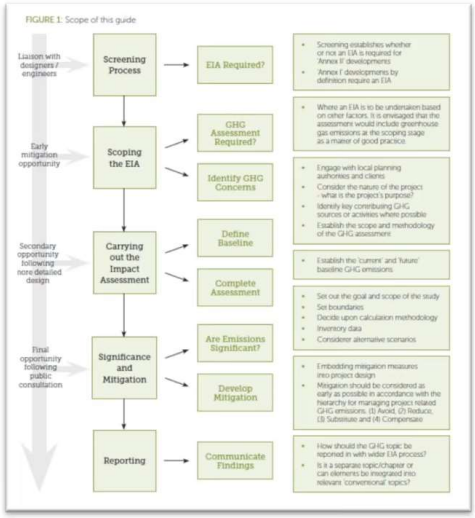
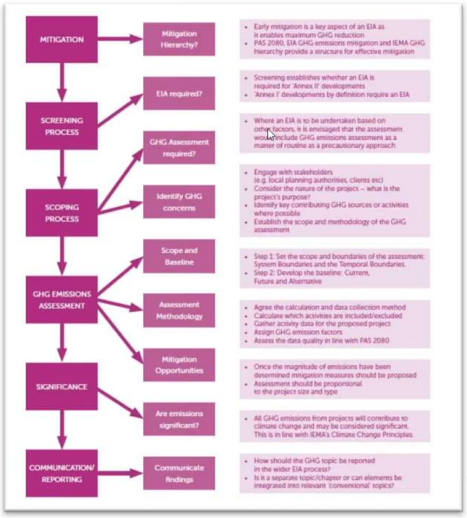
IEMA GHG & EIA Guidance

2017



2022



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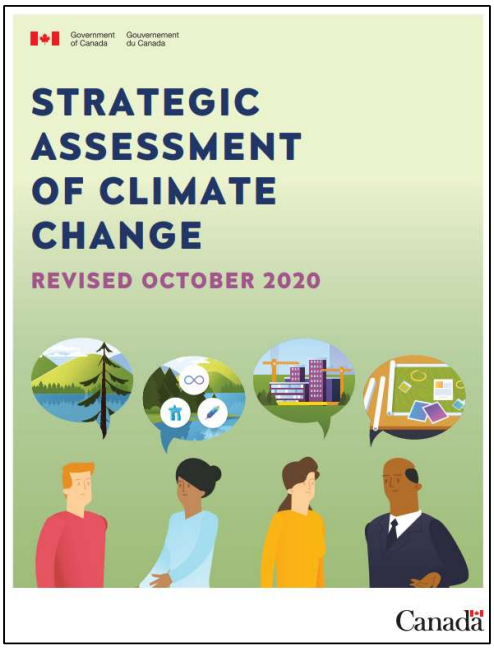

Canadian Federal GHG & IA Guidance

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Other tools + resources are emerging for Design with potential value in EIA

Example:

Construction Material Pyramid

Cinark - Royal Danish Academy Center for Industrialized Architecture

www.materialepyramiden.dk/

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Considering the project's CC Resilience in EIA practice

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CC Risk Assessment of the Project's Resilience

At its core are 3 key steps:

1) Identifying potential climate change risks to the project.
2) Assessing these risks (including option to define severity).
3) Defining mitigatory actions to reduce the likelihood / impact of the identified risks.

This could sit aside the EIA process, but the project itself may be considered a receptor: residential / transport infrastructure linked to *well-being of people*.

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Examples of CC Risk Assessment Methodologies

Appendix 1 of IEMA's 2020 EIA & CCR&A Guide highlights two useful methodological examples:

- The CCRA approach defined by Canada's Public Infrastructure Engineering Vulnerability Committee (PIEVC)
- The C40 Cities climate change risk assessment guidance (2018)

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European Commission - Technical guidance
Climate proofing of infrastructure in the period 2021-2027 (2021/C 373/01)

Annex D - *Climate proofing and EIA*

D3 – Understanding key CC Adaptation Concerns:

- How might implementing the project be affected by climate change?
- How might the project need to adapt to a changing climate and possible extreme events?
- Will the project influence the climate vulnerability of people and assets in its vicinity?

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Examples: CC Res&Adapt in Project EIA

IEMA (2020) ***EIA Guide to CCR&A*** - Appendix 2, UK examples:

- Turley – Energy from Waste facility
- Arup – Expansion of Stanstead Airport
- Multiple consultancies – High Speed 2, Phase 1 and 2a

NCEA & IAIA (2017) ***Environmental Assessment for Climate Smart Decision Making***

- **EIAs**: Denmark – Waste Management, UK – Urban Development, Netherlands – Water Management.
- **ESIAs**: Belize – Infrastructure, South Africa – Port Development, Philippines – Infrastructure.

Note: The NCEA is seeing good examples of CCA in Netherland EIA practice and is currently updating its ***SEA*** & *CC Adaptation Fact Sheet* with additional experience from practice in the Netherlands.

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Considering combined effects of the project and CC on other receptors in EIA practice

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Climate change needs to be considered in EIA of future impacts on other topics

- The climate is already changing and will continue to do so over the lifetime of our EIA projects even if GHG emissions end today.
- EIA is required to consider a project's effects on the environment against the baseline.
- Climate change may mean that status of the baseline changes over the project's lifetime.

EIA's consideration of climate change adaptation helps to ensure the combined effect of the project and the changed climate on receptors is considered and the consequences understood.

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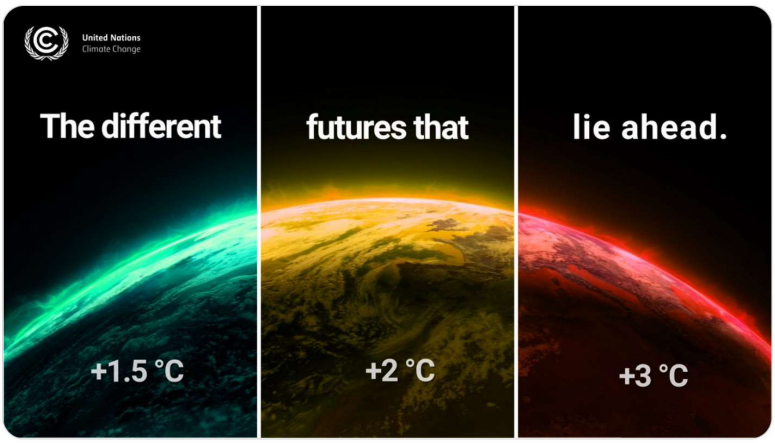
Refresher: Different CC Scenarios do not have linear impacts (UNFCCC, July 2021)



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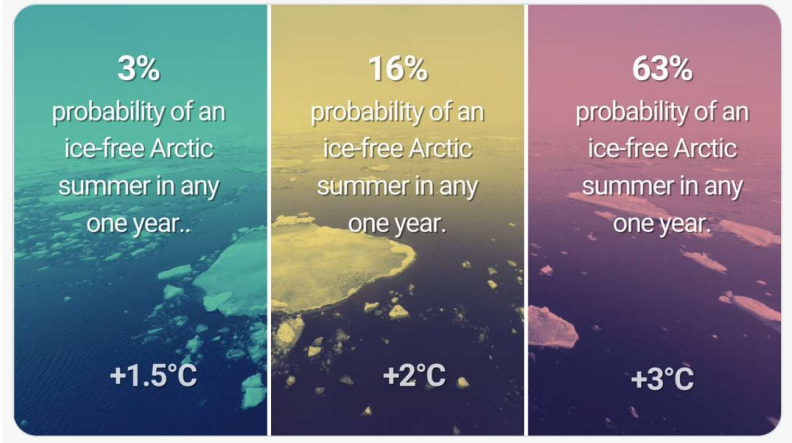
Refresher: Different CC Scenarios do not have linear impacts (UNFCCC, July 2021)



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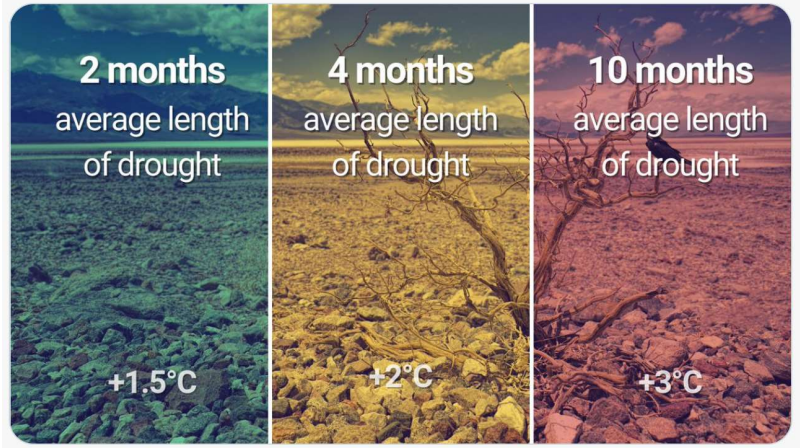

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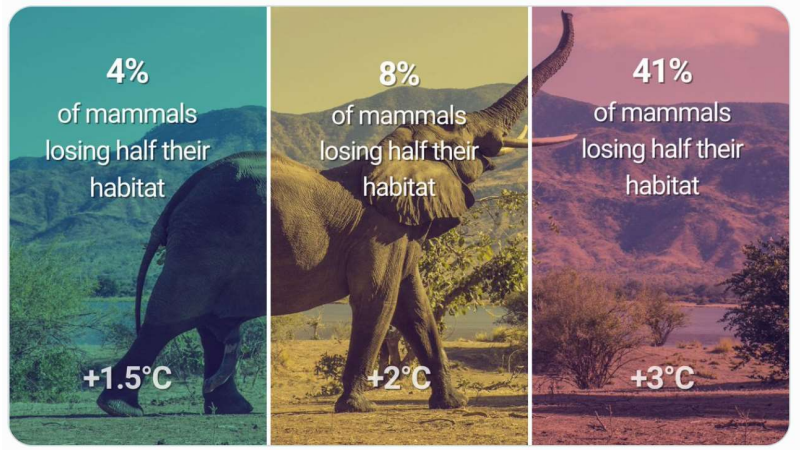

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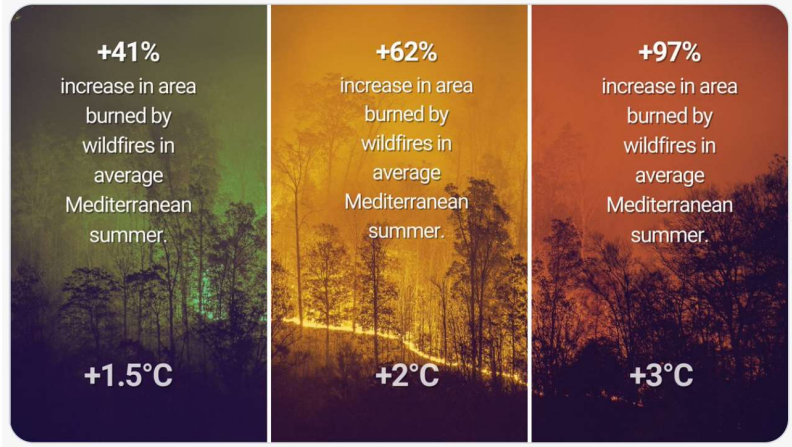

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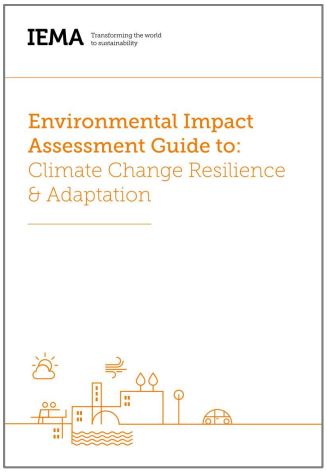
IEMA EIA Guide to CCR&A *(2nd Edition – 2020)*



Step 0: Build climate resilience into the project
Step 1: Scope CCA into the EIA
Step 2: Define the future baseline
Step 3: ID receptor CC vulnerability + sensitivity
Step 4: ID and determine magnitude of effects
Step 5: Evaluate significance
Step 6: Develop EIA mitigation measures
Step 7: Monitoring and adaptive management

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Defining Future Baseline

- The current baseline is generally defined by historic climate conditions, but the future baseline under CC will be different.
- Selecting an appropriate Climate Projection / Scenario for the assessment is key.
- This selection should include stakeholder engagement and consider:
  - Timescale of future baseline (long lasting projects may need 2+)
  - Which percentile within the scenario should be tested
  - Whether other scenarios are needed for ***sensitivity testing*** of very vulnerable / high-value receptors.

UK - IEMA Guide recommends RCP 8.5 (highest impact scenario) is applied in UK in absence of other advice.

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Receptor Sensitivity and Vulnerability to Climate Change

Susceptibility = the receptors ability to be affected by a change

[i.e. a lack of receptor resilience to predicted CC conditions]

Vulnerability = the receptors potential exposure to a change

- IEMA's 2020 Guide provides definitions of High, Moderate and Low for both of the above.
- Defining the above for different receptors should involve those with CCA expertise, topic experts + ideally key stakeholders

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Assessment and Significance

In effect we are looking at a cumulative effect on the receptor = the impacts of climate change on the future baseline + effects of the project on that receptor.

The project's 'normal' EIA effects per topic are collated and checked against the combined CCA Sensitivity & Vulnerability analysis.

Receptors identified as 'at risk' from CC are reassessed considering:

- How projected future climate could alter probability or consequence of the project's effects, and
- Whether completely new effects could arise.

Significance should be re-evaluated based on the findings.

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Reporting CC considerations in the Environmental Statement

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Proportionate EIA:
Coordinating positive CC actions enhancing EIA

Remember *Proportionate EIA* should turn the complex world of:
- Environmental Policy + Legislation
- Development + Environmental interactions

into a simple to follow coherent narrative that influences design and informs decision-making, including the public's role in this.

- How far is CC scoped into the assessment?
- Which aspects of CC will EIA focus on? What is considered elsewhere?
- GHG: Quantified / qualitative? If quantified – how far will this go?
- How will CC issues be covered in the EIS?
- How much detail is needed in the main report vs Appendices?

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The inclusion of CC in EIA need not mean more EIS Chapters

Consider coverage within existing content first:
- Context chapters – Project Description, especially if aspects of CC are scoped out of the EIA process (e.g. GHG due to quantification elsewhere)
- Scoping Chapter – How have the three key aspects of CC been considered in the EIA process? Did stakeholders make comment?
- Existing Topic Chapters – Especially when discussing the impacts of CC on the future baseline and its combined effects with the project (often operational)

If a new chapter/s is included in your EIS…
- Be clear which aspects of CC are covered within it and where other relevant information is covered – The above, EIS Appendices, other parts of the development's application documentation.

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Climate Change in EIA

SUMMARY

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Summary CC & EIA

- As an IA professional helping develop a plan / project you have a professional responsibility to ensure CC issues are discuss and to engage in those discussions.
- Key to start point with the GHG mitigation hierarchy and apply this as early as possible to save costs and maximize GHG avoidance / reduction.
- EIA process may not lead GHG considerations for your project, but it's impact combined with CC effects on receptors is something you should be considering, which can include the project's own resilience.
- Assessment decisions will need to be made and set out transparently:
  - GHG: Scope 1 > 2 > 3? Quantified / not? Which GHG factors? Sign vs GHG Target
  - CCR&A: Which CC scenario? Any sensitivity testing to others?

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Upcoming IAIA Symposium:

26 SEPTEMBER

*Choose from the following **optional**, pre-symposium events:*

TRAINING COURSE: Integrating climate change into EIAs *(09:00-17:00; additional fee)*

TECHNICAL VISIT: Iziko Museum and Steenburg Wine Farm *(09:00-17:15; additional fee)*

WORKSHOP: Role of SEA in urban planning *(09:00-17:00; additional fee)*

27 SEPTEMBER

OPENING PLENARY

CONCURRENT SESSIONS

28 SEPTEMBER

CONCURRENT SESSIONS

CLOSING PLENARY

https://conferences.iaia.org/climatechange22/

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Getting to grips with *Climate Change in EIA*

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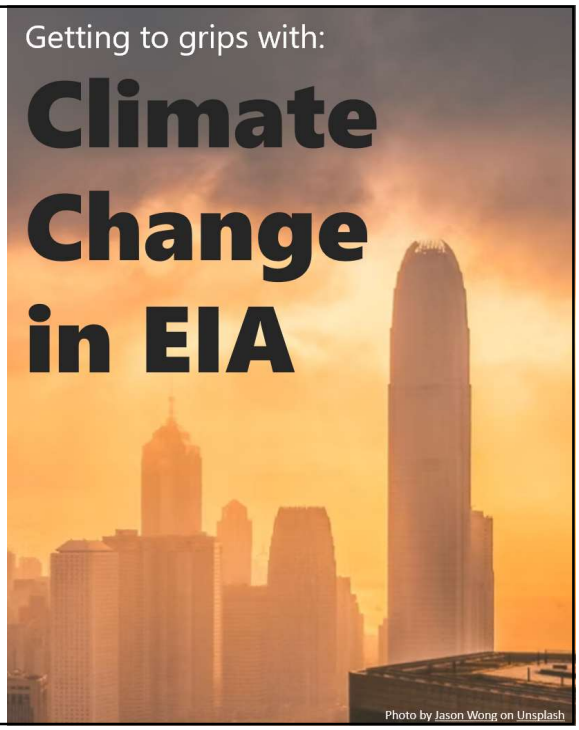
Post-webinar availability

All HKI EIA members will be emailed links to both a:

- recording of today's presentation on YouTube
- PDF of the slide deck



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Next Webinar in 2022 EIA Series

30 AUGUST – *Digital EIA*

***Registration opens ~13th August**, look out for the HKI EIA invitation email in your inbox.*

11 OCT - ***EIA and the SDGs***

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THANK YOU

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