Ad Hoc Expert Meeting on

Climate Change Adaptation for International Transport: Preparing for the Future

16 to 17 April 2019

Introduction to CaDD (Capacity Diagnosis & Development)

Presentation by

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Introduction to CaDD
(Capacity Diagnosis & Development)

UNCTAD Ad Hoc Expert Meeting on Climate Change Adaptation for International Transport: Preparing for the Future: 17th April 2019

How Climate Change Affects Organisations

Impact on company / sector performance

Impact on credit risk

Adaptive Capacity (quality of management)

Supply Chain / External Environment
Operations
Markets / Customers

After
"Advancing TCFD Guidance On Physical Climate Risks & Opportunities" (2018)
Capacity & Standards

ISO 14091 *Adaptation to Climate Change — Vulnerability, impacts and risk assessment – Draft text*

“...that adaptive capacity be taken into consideration when assessing risk. If this step is missed out, the resulting risk assessment would then cover only the (potential) climate impact”

ISO 14090 *Adaptation to climate change — Principles, requirements and guidelines – Draft text*

“The organization shall identify and document the gaps in its capacity to adapt to the impacts of climate change identified" Gaps need to be addressed in a plan that is then implemented and monitored

Response Levels

The logic for action changes as “maturity” grows.
Adaptive Capacity & Investment Risk

Losses with climate impact:
- 20%
- 28%
- 36%
- 44%
- 52%
- 60%

Nine Pathways of Change for Climate Resilience

Strategic Pathways
- A: Awareness
- B: Agency
- C: Leadership

Developmental Pathways
- D: Agents of Change
- E: Working Together
- F: Learning

Operational Pathways
- G: Managing Operations
- H: Programme Scope and Coherence
- I: Using Evidence & Expertise
Every block contains a suite of activities
Directly comparable: 21 European Cities
Types of Organisation & Their Impact on Options

- Framework Organisations
- Both
- Decision Taking Organisations

Systemic Analysis: Organisation Types & Response Levels

<table>
<thead>
<tr>
<th>Capacity Approach</th>
<th>Decisions Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Simple Decisions</td>
</tr>
<tr>
<td>Medium</td>
<td>Complicated Decisions</td>
</tr>
<tr>
<td>High</td>
<td>Complex Decisions</td>
</tr>
</tbody>
</table>

Low Capacity Approach
- Simple Decisions
- Low
- Medium
- Low
- Low

Medium Capacity Approach
- Complicated Decisions
- Medium
- Low
- Medium
- Low
- High

High Capacity Approach
- Complex Decisions
- High
- Medium
- Low
- High
- Low
- Medium
- High
Policy / Strategy Suggestions

1. Assessment of the gap between current and required adaptive capacity shall be made in the assessment of climate risk (applicable at the level of both individual organisation and system/sector)

1. A clearly defined, prioritised action plan for moving between current and required adaptive capacity shall be made in adaptation planning

Further Information

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Benchmark Effectively

Results Comparison Graph

- Company 1
- Company 2
- Company 3
- Company 4
- Company 5

Pathway

Response Level

Awareness Agency Leadership Champions Working Together Learning Operations Scope & Coherence Expertise & Evidence

Infrastructure Operators - Aggregate Data

Response Level

Awareness Agency Leadership Agents of change Working together Learning Operations Scope / coherence Expertise

Pathways

Trioss 2016
Online Data Gathering & Dialogue

**Dialogue Inquiries**
- STRENGTHS:
  - HIGHLY RELATIONAL
  - OPTIMALLY APPRECIATIVE
  - RESPONSIVE
- CHALLENGES:
  - RESOURCE INTENSIVE
  -- EXPERT TIME
  -- ORGANISATIONAL TIME

**Online Inquiries**
- STRENGTHS:
  - RAPID
  - HIGHLY SCALEABLE
  - DIRECTLY COMPARABLE
  - TARGETTED EXPERT TIME
  - APPRECIATIVE
  - EFFICIENT
- CHALLENGES:
  - HIGH LEVEL PRIORITISATION
  -- ACCOUNTABILITY
  -- RELATIONSHIPS
  -- REPORTING

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**Thames Estuary 2100 Climate Change Scenarios and Adaptation Pathway Options**

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*Maximum water level rise:

<table>
<thead>
<tr>
<th>0m</th>
<th>1m</th>
<th>2m</th>
<th>3m</th>
<th>4m</th>
</tr>
</thead>
</table>

- **Improve defences**
- **Improve Thames Barrier and drainage defences**
- **New barrier, retain Thames Barrier, improve defences**
- **New barrier, retain Thames Barrier, drainage defences**
- **High + HI / 2.100**

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*Notes:
Each box represents one or more portfolios of responses.*

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*2008 Climate Change Scenarios and implications on options*