

Objectives of the Workshop - How to combine climate adaptation with AEMS and why?

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Introduction

- Preliminary information
- Objective of the workshop
- Expected results
- Structure of the workshop



To understand the objective, we need to define what adaptation is:

- Definition: Adaptation refers to initiatives and measures to reduce the vulnerability of natural and human systems, against actual or expected climate change effects.
- Various types of adaptation exist, e.g. anticipatory and reactive, and autonomous and planned.
- Examples include: raising river or coastal dikes, etc. (IPCC, 2007)
- This may not include “actual” (realized) or “expected” (future) changes in climate.

Ratio of adaptation now

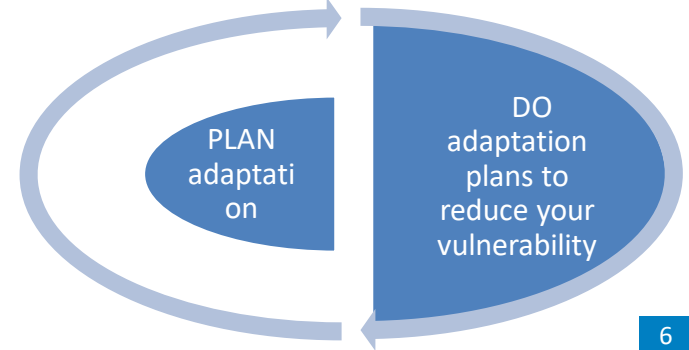
- Adaptation has the potential to reduce the adverse effects of climate change and can produce ancillary benefits, but cannot prevent all damages.
- Numerous adaptation options have been identified (sector strategies).
- Greater or more rapid climate change would pose greater challenges for adaptation.

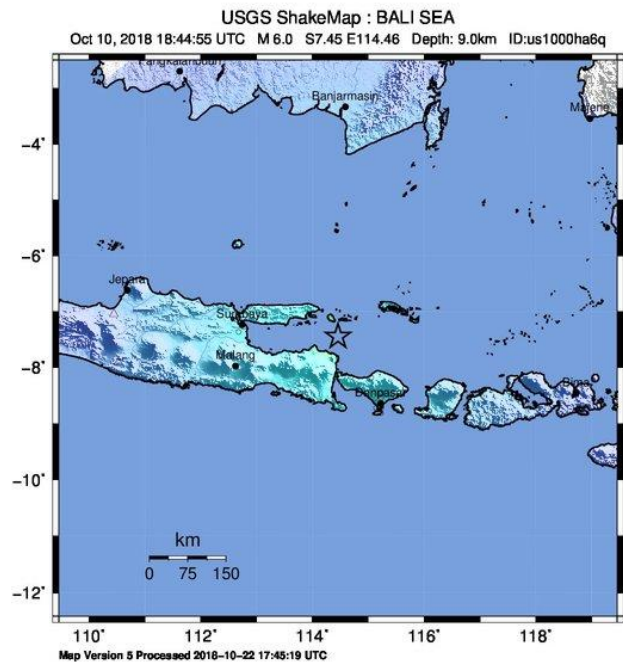
Ratio of adaptation now

- Weak investments in adaptation today mean more costs tomorrow.
- Neither adaptation nor mitigation can avoid all impacts, but they can complement each other and together significantly reduce risks.

Why adaption now?

- Because there are problems that can't be postponed anymore...and the climate change adaptation is the challenge now...
- To cope with the adaptation issues, you have to work as a state, involving all the stakeholders and all the sectors and sub-sectors of the economy.
- To work with adaptation requires a long term planning as the results are not visible in the short term.
- You have learnt how to deal with State Action Plan, with mitigation measures, with CORSIA, but this is not enough...you need to plan as the natural disasters affect your infrastructures and create huge problems to your economy.





PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC. (m/s ²)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL. (cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Worden et al. (2012)



How the EU is working as a region on adaptation

- 2009 **white paper**: "Adaptation to climate change: Towards a European framework for actions" sets out a number of measures that have been largely implemented.
- Key outcome of this document: web-based European Climate Adaptation Platform (launched in 2012) - **Climate Adapt** (<http://climate-adapt.eea.europa.eu/>). This portal incorporates the latest data on adaptation action in the EU including several policy support tools.
- EU adaptation strategy: to contribute to a more climate resilient Europe.

Adaptation context in the ASEAN region

The ASEAN Leaders at the regional level have issued Declarations/Statements related to climate change at their 2007, 2009 2010, 2011, 2014, 2015, 2016 and 2017 summits. **Through the Statements, the ASEAN Leaders expressed ASEAN's common views/concerns and aspirations towards a global solution to the challenge of climate change and their resolve to achieve an ASEAN community resilient to climate change through national and regional actions.**

In addition to ASEAN Joint Statement on Climate Change, ASEAN and dialogue partner countries also **adopted joint-statements to articulate the commitment to collectively addressing climate change issues, as follows:**

ASEAN-US Joint Statement on Climate Change adopted at the 2nd ASEAN-US Summit on 13 November 2014 in Nay Pyi Taw, Myanmar.

ASEAN-EU Statement on the Paris Agreement: Reaffirming Commitment to Cooperation to Address the Shared Challenge of Climate Change adopted at the Post Ministerial Conference (PMC) +1 Session with the European Union (EU) to commemorate the 40th Anniversary of the Establishment of ASEAN-EU Dialogue Relations on 6 August 2017 in Manila, the Philippines.

Adaptation context in the ASEAN region

Southeast Asia faces a dual challenge:

1. It must adapt to climate change caused largely by greenhouse gases emitted over decades by advanced economies—and more recently by developing economies such as China and India.

BUT.....

2. It also must alter development strategies that are increasingly contributing to global warming.

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Some projects already developed

ASEAN-India Project on Enhancing Climate Change at the Local Level at Southeast Asia (Phase I).

The project was implemented in 2015, coordinated by the Southeast Asia Disaster Prevention Research Initiative Universiti Kebangsaan Malaysia (SEADPRI-UKM). The project established a virtual network of existing ASEAN Partner Institutions on Climate Change Adaptation, and to continue with the exchange of information on good practices and communication beyond the project.

A recent workshop in Thailand

May 2019: The Government of Thailand hosted the Association of Southeast Asian Nations (ASEAN) Workshop on "Strengthening Climate Resilience of ASEAN Member States (AMS) through Experience Sharing and Lessons Learn on Progress of Climate Change Adaptation Activities".

The workshop provided a platform for knowledge-sharing and building up on the rich expertise of the participants. In total, 80 participants, including 42 delegates from 9 ASEAN Member States and representatives from a range of national and international organizations, took part in the workshop.

Problems linked the geographical configuration of the ASEAN region

Average temperatures in Southeast Asia have risen every decade since 1960. Vietnam, Myanmar, the Philippines, and Thailand are among 10 countries in the world most affected by climate change in the past 20 years (Germanwatch)

The Asian Development Bank (ADB) estimates Southeast Asia could suffer bigger losses than most regions in the world. Unchecked, climate change could shave 11 percent off the region's GDP by the end of the century as it takes a toll on key sectors such as agriculture, tourism, and fishing—along with human health and labor productivity.

Problems linked the geographical configuration of the ASEAN region

While the region's greenhouse gas emissions have been low relative to those of advanced economies in per capita terms, that is starting to change, largely because of its increasing reliance on coal and other fossil fuels. Between 1990 and 2010, emissions of carbon dioxide increased faster in Southeast Asia than anywhere else.

Objective of the workshop

- Present the main concepts of adaptation in order to sensitive the aviation stakeholders on the importance of planning adaptation actions to avoid the worst.
- Present to the aviation actors how the ministries in charge of environment are working on this specific topic under the climate change chapter.
- Sensitize the ministry in charge of environment to include aviation sector between their priorities as climate change strongly affects the aviation, producing extreme additional costs .

How to link adaptation and AEMS?

- Extreme weather is very damaging to infrastructure, as evidenced by weather-related damage and loss statistics worldwide
- The frequency, intensity, spatial extent, duration and timing of events are expected to increase while slow-onset incremental changes may lead to fundamental transformation of the socio-economic system.

How to link adaptation and AEMS?

- Many airports may remain vulnerable to these events as the risks of flooding, flight disruptions and cancellations become more likely.
- Airports need to understand the risks and initiate adaptation measures for both existing and new infrastructure, as well as managing critical operations to become more resilient to the changing climate.

Why are we here these days?

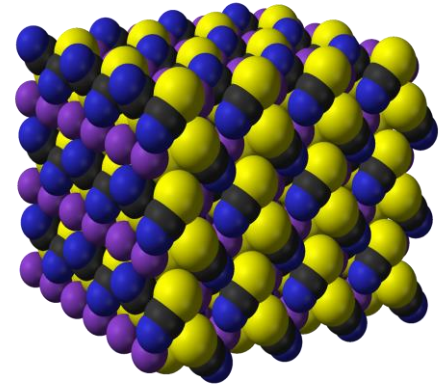
- To understand if possible to plan and work with adaptation together.
- To progressively raise up the attention of the ASEAN Secretariat towards a dimension of climate change that requires a long planning and coordinated approach to work.
- To sensitise all the stakeholders on the importance of designing a regional approach to adaptation to guarantee that all national adaptation plans contain a component on the aviation sector. This implies that an ad hoc planning activity for reducing the vulnerability has to be considered and designed.

Expected results

- At the end of this day and a half, ASEAN States are aware of what adaptation is and start thinking on how to integrate aviation sector in the national adaptation plans already designed and/or in the process of being finalized.
- ASEAN States start reflecting on the AEMS as a way to include environmental considerations in their airports, through the assessment of risk and environmental management.
- Some ASEAN states are ready to be supported in working with the AEMS.



Structure of the workshop



- 1 day on adaptation and how states are working with this theme, starting from Indonesia as last year, exactly during this period, was strongly affected by a natural disaster.
- Half a day on AEMS starting with the success story of Thailand in Trat, hearing the direct experience of Trat airport staff, to continue with the other states already expressing their interest in being supported on this specific topic.



Thank you for your attention!

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