



التسونامي واستدامة المجتمعات الساحلية

مقرر لطلبة الدراسات العليا
كلية التخطيط الإقليمي والعمراني

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The Course Notion What do you know about tsunami?





The current issue and full text archive of this journal is available at
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Sustainable resorts: learning from the 2004 tsunami

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Sustainable
resorts: the 2004
tsunami

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The Course Notion: Tsunami and Sustainability of Coastal Communities



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Sustainable resorts: learning from the 2004 tsunami

Sustainable
resorts: the 2004
tsunami

Japan 2011 Tsunami



Still: HOW does that HAPPENS?

.....Course Introduction

Tsunami

..... a Catastrophic Natural Phenomena



Video 1 .. Tsunami Movie



Video 2 .. Tsunami History



Video 3 .. Japan Tsunami 2011

..... Introduction

The World Coastal Communities Nowadays



About 71 percent of
the Earth's surface
is water-covered



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Course Contributions

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Tsunami and Sustainability of Coastal Communities

Tsunami is Sudden Death .. Either you are prepared or not . . . it has nothing to do with Climate Change or Rising of Sea Water Levels, which happens over a long period of time and it's damage is predicted and can be mitigated.

Tsunami is one of the **worlds' largest catastrophic phenomenon** (Cochard et al., 2008). Although the hazard duration lasts only a **few hours or even minutes**, its impact lasts for life on property and the natural environment (Paris et al., 2009; Cochard et al., 2008).

Tsunami is a **natural phenomenon** that is triggered by other **natural phenomena** such as submarine faulting, submarine slides and slumps triggered by shallow strong earthquakes, submarine volcanic explosions erupting a huge mass of lava into the water, and a falling cosmic from outer space (Todorovska and Trifunac, 2001; Lovholt et al., 2012).

Tsunamis form major geomorphic crises causing changes of coastal lines, beach erosion, sediment transport inshore and offshore only in a few minuets and over hundreds of coastal kilometers (Dawson and Stewart, 2007; Maouche et al., 2007; Camilleri, 2006).

The height of the wave while traveling in open water is limited causing no or minimal threats; however, when approaching shores of coastal areas it builds up to tens of meters in height (Ozel et al., 2011; Todorovska and Trifunac, 2001).

Introduction



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Developing a Course Notion Why Tsunami?

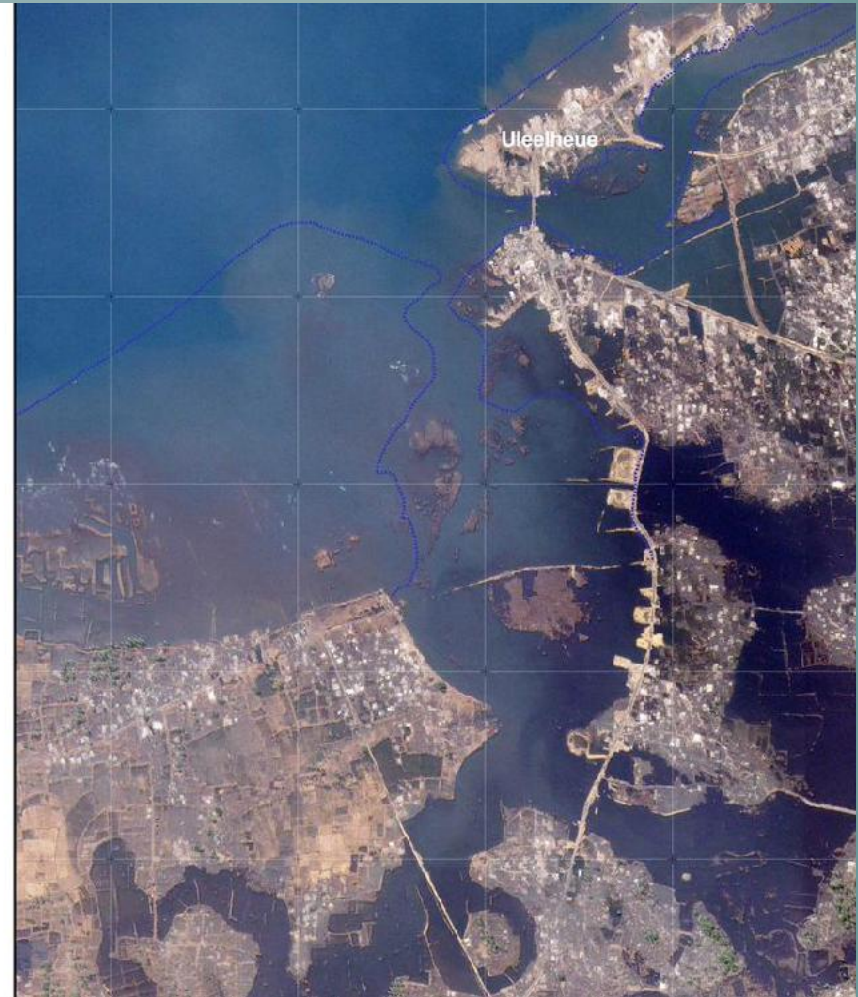
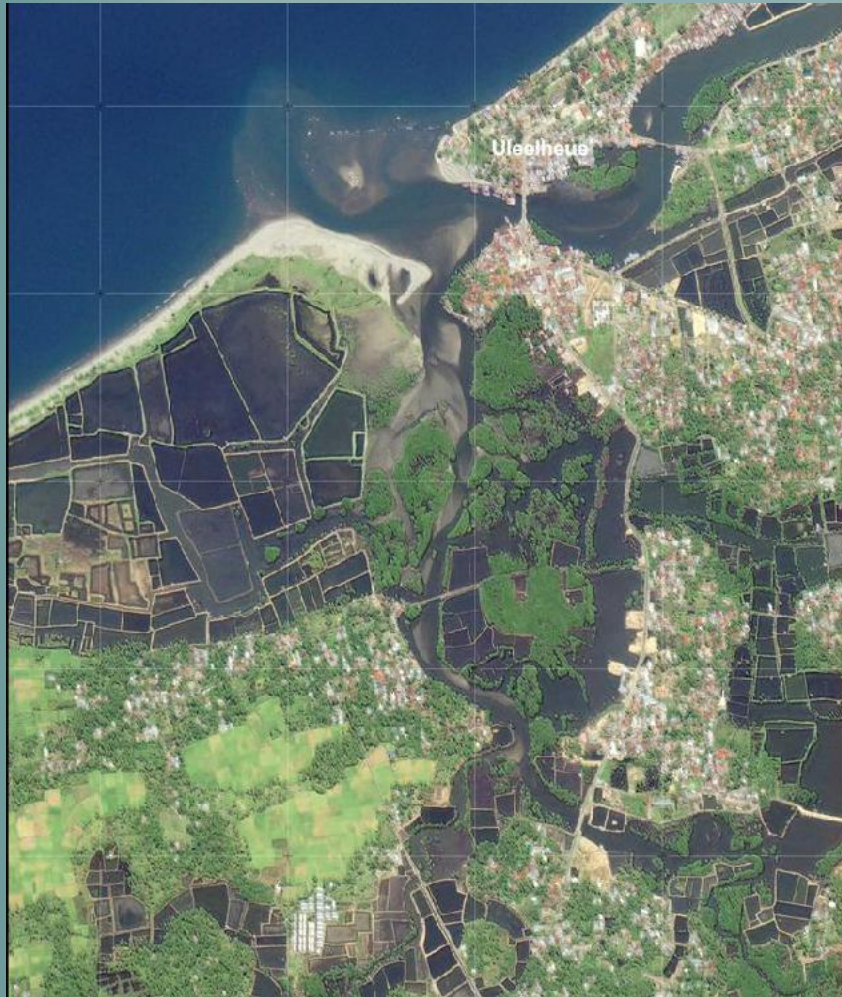
Until recently, tsunami was not considered a hazard phenomenon; however, following the Boxing Day Tsunami the conscious of the world has changed towards one of the most natural devastating phenomenon. On the 26th of December 2004 the world witnessed "the third largest fast natural disaster calamity recorded in human history and largest to be caused by sea waves" (Cochard et al., 2008:4) Estimated death of over 300 thousand people and left around more than 700 thousand people homeless (Ozel et al., 2011; Pignateli et al., 2009).

Another shocking truth revealed from the 'Boxing Day Tsunami' was that although the government of Indonesia was notified shortly before the tsunami came upon the shores of Sumatra, the political decision was to not issue a warning. They could not really estimate, imagine or speculate the huge human casualties and deaths that have happened. They decided that a warning might cause chaos among the high-density coastal

Since then the conscious of the world has changed. There are true commitments that communities should not be caught in a tsunami without a prior alarm.
The Science of Tsunami Resilience and Mitigation Measure for More Sustainable Coastal Communities is now in the Focus of the World Research Organizations

Introduction

The World Coastal Communities Nowadays



The World Coastal Communities Nowadays



.....Course Introduction

The World Coastal Communities Nowadays



This Human Being was enjoying .. the view on a coastal area. . . does he deserve to be dead?

Are these cars or boxes?



Tsunami Knowledge for a more Sustainable Coastal Communities



Karl Nilsson



Tilly Smith





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Developing a Course Notion Why Tsunami?

Human Benefits

Among the true
path to real
SUSTAINABILITY
comes the ability
to promote health
to human beings
and the
environment

Natural Resources

What are the benefits studying Tsunami 1

age

Introduction



Video 1 .. What the World have to do....



What is a Tsu

What is the Tsunami process?

What can planners and architectures have to do with tsunamis?

How can we predict the impact of Tsunami on coastal communities

Can the world do anything to resilience and mitigates the tsunami threats on the sustainability of coastal communities?





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Introduction	Q: What is a tsunami?
Lecture One Tsunami, Egypt, and Planners	Q: What does tsunami has to do with us in Egypt ? Q: How is tsunami related to the architecture, urban designer and planning fields?
Lecture Two The tsunami process	Q: Is their a process for a tsunami?
Lecture Three Tsunami Science 10 years following the boxing day	Q: What has been done, and what is needed to be done?
Lecture Four Tsunami Hazard Analysis Model	Q: How can we define tsunami prone areas in coastal communities?
Lecture Five Students Forum 1 Tsunami Prone Areas	Students Forum 1 Q: How can we present inundation maps for tsunami prone areas?
Lecture Six Strategic Tsunami Risk Assessment Model .. Theoretical Model	Q: How can we define people at risk in tsunami prone areas?

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Lecture Seven

Strategic Tsunami Risk Assessment Model ... Practical Case Study on the City of Alexandria

Q: What is the efficiency of the proposed STRAPM?

Lecture Eight

Sustainable Tsunami Resilience communities

Q: How can we increase the Sustainability of Coastal Communities against Tsunami's Threats?

Lecture Nine

Tsunami Evacuation and Mitigation Plans

Q: Is it possible to have evacuation plans against tsunami hazard in coastal areas?

Lecture Ten

Tsunami Prone Areas Evacuation Management and Planning

Q: Is it possible to have evacuation plans against tsunami hazard in coastal areas?

Lecture Eleven

Students Forum 2

Sustainable Tsunami Evacuation Plans

Q: Have you managed to create an evacuation plan for your case study?

Final Lecture

Course Contribution

Can anything be done regarding the sustainability of the coastal communities, now that we do acquire the tsunami knowledge?

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STUDENTS TASKS

Task One: write one paper about whether or not tsunami is important

- Only one A4 paper is required
- The number of references to be used in composing the paper not less than four



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SUSTAINABILITY

