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BLUE LIMASSOL
FORUM
2022

A holistic environmental risk assessment of Limassol coastal area

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Limassol Coastal Area



Concentration of Sectors in Limassol Coastal Area



Is Sustainability a Realistic Target?



Are we suitably prepared to manage an incident?



Oil leak from the Baniyas power plant in Syria



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Holistic Risk Assessment Study - Scope



IDENTIFY



EXPLAIN



ASSESS



RECOMMEND



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Extent of the Study



Geography covered

- 30km of coastline
- 1000m inshore
- Examined offshore areas relevant to the sectors

Sectors

- Shipping & Ports
- Oil & Gas
- Coastal Construction
- Solid & Liquid Waste
- Marinas & Recreational Yachting
- Aquaculture & Fisheries



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Research Methodology



Risk Level

Consequence X Likelihood

of the impacts to a
value if a risk event
occurs

of that risk event
occurring



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Collective Risk Assessment

Major Risk 1

Leakages of oil products and disposal of oily waste, while lacking full experience and capability for emergency responses to major marine incidents

Contributing Industries

- **Shipping & Port Operations**
- **Downstream Storage and Transportation of Oil**
- **Recreational Yachting**



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Collective Risk Assessment (Cond')

Major Risk 2

Illegal/Unwanted Releases of Sewage in the marine environment

Contributing Industries

- **Recreational Yachting**
- **City Sewage Network**
- **Shipping and Port Operations, to a lesser extent**



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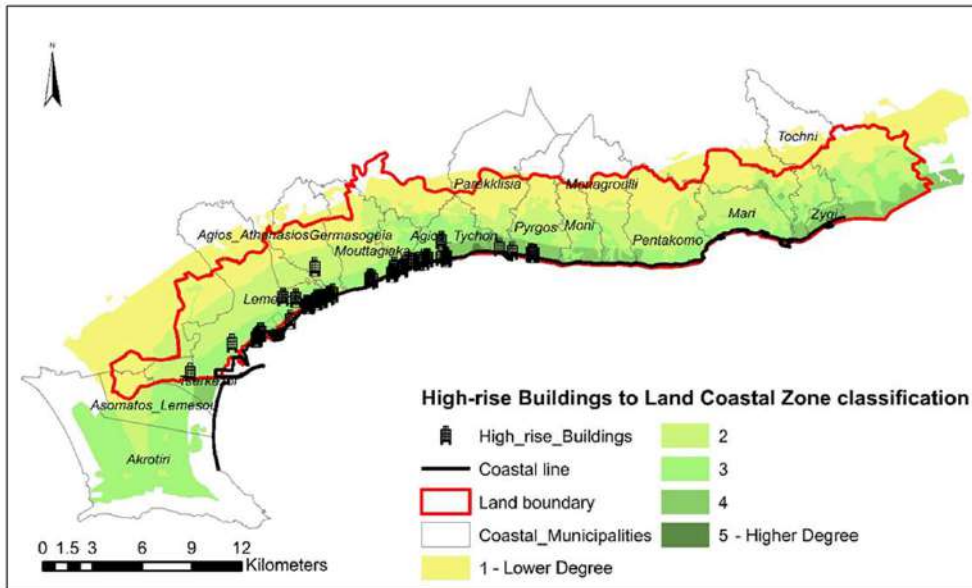


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Collective Risk Assessment (Cond')

Major Risk 3

Releases of underground/cement water, rainfall run-off and ballast water



Contributing Industries

- Coastal Construction
- City Sewage Network
- Shipping and Port Operations



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Major Areas of Deficiency

- **Fragmentation of responsibility** among many overseeing bodies
- **Incomplete enforcement** of extant regulations
- **Insufficient application of technology** to reinforce areas of deficiency
- **Insufficient sampling capabilities** to establish type of incident
- **Absence of long-term planning**
- **Narrow focus** on individual industries with externalities or spillovers
- **Limited environmental consciousness** and education



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Recommended Mitigation Practices

- **Develop an integrated data-sharing platform** across affecting industries.
- **Standardize procedures** for reporting, recording and retrieving incidents.
- **Implement** Holistic Coastal Zone Management.
- **Introduce an integrated emergency response plan** and extraordinary event management masterplan.
- **Climate Change Adaptation Plan (CCAP)** for a resilient and evidence based urban planning.
- **Urban Density Assessment** to realize the physical and visual impact of densification in line with the Limassol Local Plan.
- **Expand monitoring and surveillance** systems via the use of technology (i.e. aerial drones).



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Recommended Mitigation Practices (Cond't)

- **Educate** yacht owners regarding sustainable boating activities.
- **Introduce compulsory marina e-log books** for sewage levels and disposal in vessels.
- **Expand installations** of water retention systems:
 - reservoirs
 - bio-retention systems
 - infiltration trenches
 - permeable pavements
 - grooved natural grasses
- **Promote** the use of floating cages and multi-use offshore platforms.
- **Improve aquaculture feeding mechanisms and** monitoring to improve the Feed Conversion Ratio.
- **Cease** trawling activities.
- **Train** fishers about best practices and available support funds for alternative fishing gears.



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Moving Forward to an Action Plan

- **Ad-hoc committee** to assess the efficacy of study recommendations
- **Rigorous cost and benefit analysis** of select recommendations
- **Action plan** considering collaborative and synergistic effects to implement best-industry environmental risk mitigation practices, aligned with:
 - **Integrated Maritime Policy** based on Limassol Declaration of 8 October 2012
 - **United Nations Sustainable Development Goals**



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Study Highlights

Largest-scale research study for the Limassol coastal & Marine Environment

500+

Citizens Participating in initial
Opinion Survey

6

Sectors/Industries
assessed in a holistic way

25

Researchers Employed

5

Knowledge Organizations

20,000

Working Hours Allocated

10

Independent Reviewers,
Professors from renown
European Universities

88

Institutional Stakeholders
Engaged

