

# DEEP-SEA MARINE BIOPROSPECTING UNDER UNCLOS AND THE CBD

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*6th ABLOS Conference  
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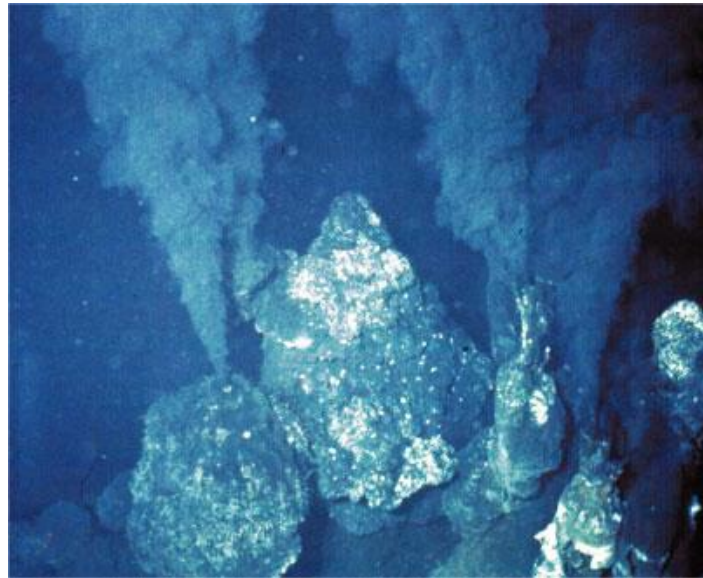


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# I. Deep sea genetic resources

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- Deep-sea: 80 to 97% of our planet's biosphere
- Most of that biodiversity is as yet undiscovered.
- Deep sea genetic resources mostly found at hydrothermal vents, cold seeps and other sites with peculiar geomorphological features



## II. What is marine bioprospecting?

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- **Search for, and commercial development of, marine genetic resources**
  - Phase 1: On-site collection of samples
  - Phase 2: Isolation, characterization and culture of specific compounds
  - Phase 3: Screening for potential uses
  - Phase 4: Product development and commercialization
  
- **Significant potential for large-scale industrial development (eg cosmetics, pharmaceuticals)**

## V. Marine bioprospecting in the Exclusive Economic Zone (EEZ) (1)

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- **Coastal State's sovereign right to engage in marine bioprospecting**
  - Art. 56(1) UNCLOS
  
- **Coastal State's obligations to protect and preserve marine genetic resources under Part XII of UNCLOS**
  - General obligation: Art. 192 UNCLOS
  - Obligation to prevent, reduce and control pollution of the marine environment: Art. 194-196 UNCLOS

## VI. Marine bioprospecting in the Exclusive Economic Zone (EEZ) (2)

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- **Coastal State's obligations to identify and monitor marine genetic resources**
  - Art. 7(a-b) CBD
  
- **Coastal State's obligations to monitor potentially harmful activities**
  - Art. 7(c) CBD
  
- **Coastal State's obligations to implement Access and Benefit-Sharing (ABS) mechanisms**
  - Art. 15 CBD
  - On-going negotiations (Nagoya meeting)

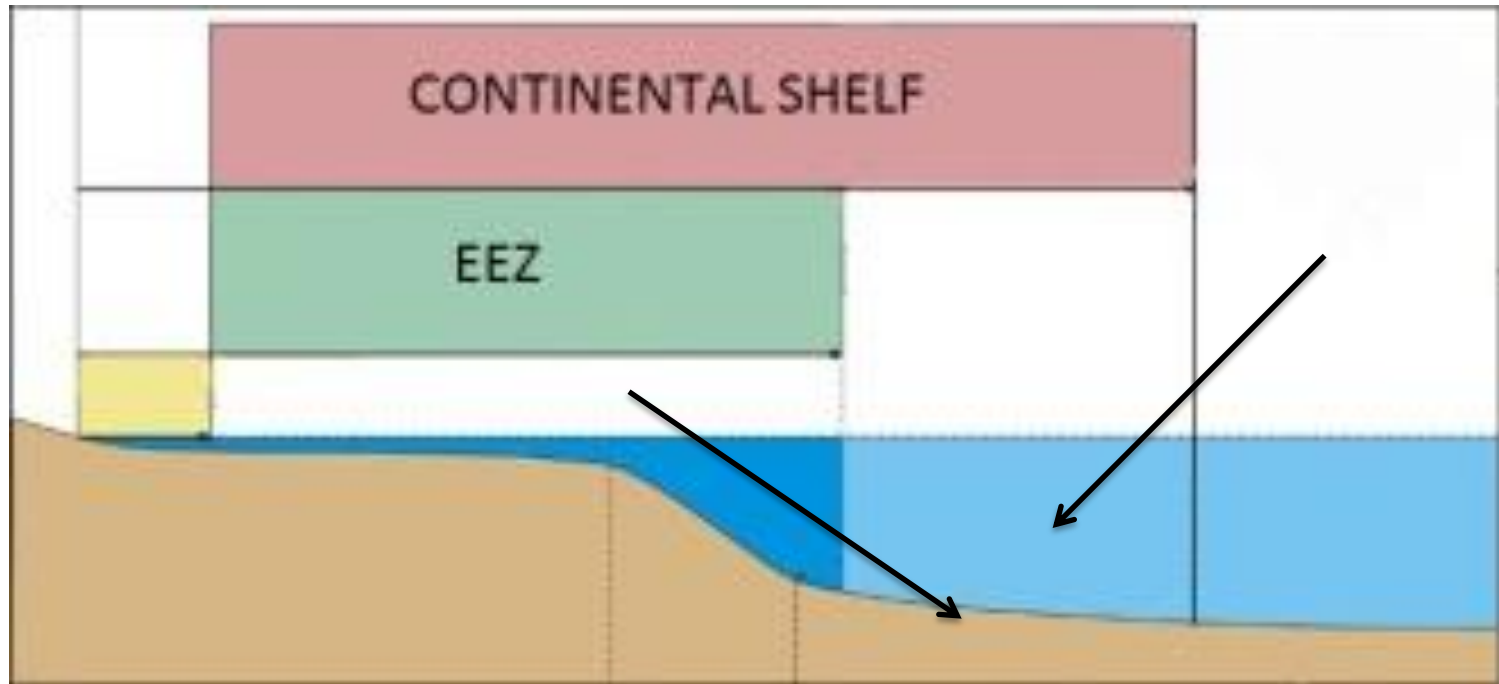
## VII. Marine bioprospecting on the Continental Shelf (1)

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- Coastal State's sovereign right to engage in marine bioprospecting
  - Art. 77(1) UNCLOS
  
- Coastal State's environmental obligations (same as in the EEZ)

## VIII. Marine bioprospecting on the Continental Shelf (2)

- Bioprospecting on the seabed vs. bioprospecting in the water column: does it make sense?



## IX. Marine bioprospecting in the high seas (1)

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- **An open-access regime**
  - Art. 87(1) UNCLOS
  - Part XI of UNCLOS is not applicable – ISA has no jurisdiction
  
- **Unfettered access?**
  - NO obligation to identify and monitor marine genetic resources (Art. 7(a-b) CBD)...
  - NO Access and Benefit-Sharing mechanisms (Art. \_\_\_ CBD)



## X. Marine bioprospecting in the high seas (2)

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- **Flag States' (limited) obligations to preserve the environment**
  - General obligations (Art. 192 and 194-196 UNCLOS)
  - Obligation to monitor the effects of activities that may harm the marine environment (Art. 4(b) and 7(c) CBD)
  
- **Flag States' duty to cooperate for the conservation and management of marine genetic resources**
  - Article 118 UNCLOS
  - 'Identical' genetic resources?

## XI. The way forward

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- ***Status quo* with respect to areas under national jurisdiction**
- **Discussions regarding areas beyond national jurisdiction**
  - Maintaining the *status quo* ?
  - Applying Part XI of UNCLOS?
  - A practical step-by-step approach?

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