



## AGENDA

# Science for Ocean Actions

### 19 NOVEMBER 2018

#### Arrival in Bergen

1800–2100 Registration at Hotel Norge

1900 Reception with refreshments at Hotel Norge

### 20 NOVEMBER

0800 Registration

0900 Opening address

*Sissel Rogne, Director: Institute of Marine Research, Norway*

#### State of the ocean – challenges and opportunities

0915 Sustainable development

*Katherine Richardson, Denmark*

0930 Ocean science and the ocean action framework

*Peter Haugan, Norway*

### TOPIC I: Impacts of climate change on marine ecosystems

Climate variability and change can have profound impacts on the productivity and resilience of marine ecosystems. In this panel discussion we will explore how climate change may affect the productivity and distribution of fisheries resources, coral reefs and mangroves, from both biological and economic perspectives.

0950 Impacts of climate change on fisheries and aquaculture

*Manuel Barange, FAO*

1005 Climate change and coral reefs

*Yimmang Golbuu, Palau*

1035 **Panel:**

Climate impact at high latitudes

*Anne Hollowed, USA*

Climate impacts on equatorial seas

*Elisabeth Holland, Fiji*



Bioeconomic view of climate change

*Rashid Sumaila, Canada*

Climate impacts on marine ecosystems

*Laurent Bopp, France*

Moderator: *Peter Haugan, Norway*

1120 Round-table discussion

1200 Lunch

1300 Address by the Norwegian Prime Minister

*Erna Solberg*

## TOPIC 2: Ocean health

This panel will review our knowledge of the state of marine pollution and debris, including old and emerging contaminants, and plastics and microplastics. An integrated approach to ocean health will be discussed.

1315 Ocean health and pollution challenges

*Peter Swarzenski, Monaco*

1330 Plastic and microplastic pollution

*Bjørn Einar Grøsvik, Norway*

1345 Emerging pollutants in marine ecosystems

*Kathrin Vorkamp, Denmark*

1400 **Panel:**

Environmental quality of marine ecosystems

*Oleg Titov, Russia*

Antibiotic resistance in marine ecosystems

*Peter Smidt, Ireland*

Moderator: *Geir Lasse Taranger, Norway*

1445 Round-table discussion

1515 Health break

## TOPIC 3: The state of fisheries resources

The global status of fisheries resources will be presented, together with discussions of the impacts of illegal, unregulated and unreported (IUU) fishing, the role of small-scale and artisanal fisheries, the potential of unexploited resources, and lessons learned in fisheries management. New perspectives on the management of living marine resources, such as integrated ecosystem assessments (IEA) and ecosystem-based management will also be explored.

1530 Generating evidence and advice to sustain safe and sufficient seafood supplies

*Simon Jennings, UK*

1545 Unexploited fisheries resources

*Dag Aksnes, Norway*

1600 Illegal, unregulated and unreported fisheries

*Matthew Camilleri, FAO*

- 1615 **Panel:**  
 Small-scale and artisanal fisheries  
*Stuart Kininmonth, Fiji*  
 IEA approach to fisheries  
*Mette Skern-Mauritzen, Norway*  
 Ecosystem approach to fisheries in upwelling areas  
*Hilkeka Ndjaula, Namibia*  
 Moderator: *Geir Huse, Norway*
- 1700 Round-table discussion
- 1730 Close
- 1900 Conference dinner at Håkonshallen

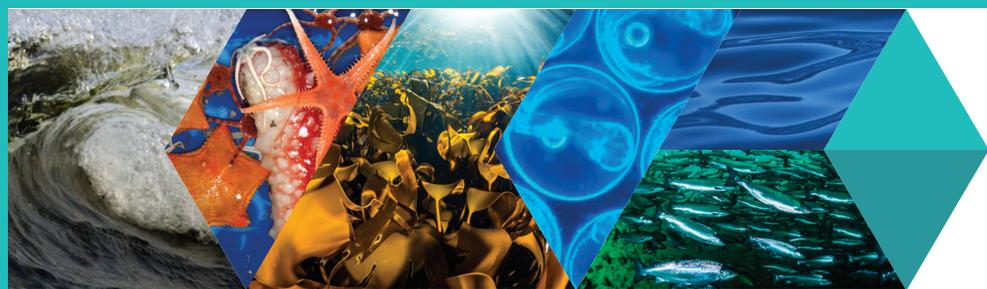
## 21 NOVEMBER

### TOPIC 4: Sustainable aquaculture

Aquaculture is now as important as marine fisheries in providing food for human consumption, and may become even more important in the future. Mariculture represents about one third of the global aquaculture production, excluding plants. This panel discussion will address the potential and the challenges of expanding marine aquaculture, taking into consideration environmental sustainability, issues related to feed, and production at lower trophic levels.

- 0830 Opportunities for marine aquaculture  
*Carlos Duarte, Saudi Arabia*
- 0845 Global aquaculture challenges  
*Peter Cranford, Canada*
- 0900 Ecosystem approach to aquaculture  
*Doris Soto, Chile*
- 0915 **Panel:**  
 Kelp aquaculture  
*Jianguang Fang, China*  
 Fish aquaculture  
*Bente Torstensen, Norway*  
 Multi-trophic aquaculture  
*Aad Smaal, The Netherlands*  
 Fish feed for aquaculture  
*Brett Glencross, UK*  
 Moderator: *Karin Kroon Boxcaspen, Norway*
- 1000 Round-table discussion
- 1030 Health break





## TOPIC 5: The importance of seafood for human nutrition

The role of seafood in sustainable food systems and in providing adequate nutrition for humans is critically important and is addressed in Sustainable Development Goal 2. This panel will explore food safety and food security questions, including dietary needs.

- 1050 Seafood and sustainable food systems  
*Anna Lartey, FAO*
- 1105 Seafood in relation to health and development  
*Gro-Ingunn Hemre, Norway*
- 1120 Dietary needs – Fish give big gains to nourishing nations  
*Shakuntala Thilsted, Malaysia*
- 1135 **Panel:**  
Leaving no one behind – Equalising opportunity in fish aquatic-/agri-food systems to improve human capital outcomes  
*Pavan Patil, USA*  
Seafood and health  
*Ann-Sofie Sandberg, Sweden*  
Seafood safety  
*Pål Weihe, Faroe Islands*  
Moderator: *Livar Frøyland, Norway*
- 1220 Round-table discussion
- 1245 Lunch

## TOPIC 6: Future sustainable use of ocean biological resources

Drawing from earlier discussions, this panel will consider possible future trajectories of the issues raised. Particular focus will be on the science-policy interface, from the science perspective. The panel will identify potential actions that emerged from the issues addressed by the conference on the current status of scientific knowledge of the oceans.

- 1340 Ecosystem approaches – Sustainable ocean use  
*Cisco Werner, USA*
- 1350 Ocean governance  
*Dmitry Gonchar, UN DOALOS*
- 1400 Future aquaculture  
*Einar Wathne, Norway*

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- 1410 Future fisheries  
*Gabriella Bianchi, Norway*
- 1420 The future of ocean science, stepping up  
from curiosity to societal service  
*Vladimir Ryabinin, UNESCO IOC*
- 1430 Science-policy interface  
*Anne Christine Brusendorff, Denmark*
- 1440 Panel discussion  
Moderator: *Manuel Barange, FAO*
- 1530 Closing remarks  
Special representative to the Prime Minister's  
High Level Panel for the Oceans  
*Vidar Helgesen, Norway*
- 1545 **The end... or a new beginning**

