THE OCEAN DECADE VIRTUAL SERIES

Co-designing the Science we need for the Ocean Decade
- Part 1 -

24 Sep 2020
16.00-18.00 (CEST)
Agenda

Moderator - Susanne Moser  
Senior Adviser of ISC, Transformations to Sustainability programme

- Opening Remarks
- The Ocean Decade vision

**What is co-designed, solution-oriented research in the context of the Decade?**
- What is transdisciplinary research
- Lessons learned from transdisciplinary project
- From interdisciplinarity to transdisciplinarity

**How to foster co-designed, co-production, co-delivery in ocean research?**
- Funding structure
- Overcoming institutional barriers
- Role of private sector
- Reinforcing the science-policy interface
- Regional Ocean Governance

**Question period**

- How to foster co-designed, co-production, co-delivery in ocean research?

- Next steps & Closing

- Vladimir Ryabinin  IOC-UNESCO
- Mathieu Denis  International Science Council
- Christa Von Hillebrandt-Andrade  US National Weather Service

- Carthage Smith  OECD Global Science Forum
- Isabel Sousa Pinto  Multidisciplinary Expert Panel of IPBES
- Alice Vadrot  MARIPOLDATA project

- Josh Tewksbury  Future Earth
- Shuaib Lwasa  LIRA 2030 programme
- Wenche Gronbrekk  Cermaq Group
- Kristina Gjerde  International Union for Conservation of Nature
- Ben Boteler  Institute for Advanced Sustainability Studies

- Alison Clauson  IOC-UNESCO
Vladimir Ryabinin
Executive Secretary IOC-UNESCO and
Assistant Director General
Launching the Ocean Decade Virtual Series

Key pillars of the series:
• Concept of inclusivity
• Principle of co-design and co-delivery
• Concept of subsidiarity
• Principle of partnership

Organized around the Decade Challenges and relevant cross-cutting issues for instance
• Research co-design, Ocean & Human Health, Ocean-climate nexus, sustainable economy of SIDS, ocean observation, food security, etc

Next Ocean and Human Health Oct 5, 15:00-16:15 CEST
Opening Remarks

Mathieu Denis
Science Director
International Science Council
Christa Von Hillebrandt-Andrade
Manager United States National Weather Service Caribbean Tsunami Warning Program and member of the Executive Planning Group of the Decade
Central to the Ocean Decade is the notion of transformation

Where we are

- Science largely competent for problem diagnostic
- Observing system for climate and emerging data service
- Major knowledge gaps, weak ocean literacy
- Funding base mostly in research mode
- Hugely uneven capacity, especially in developing countries/SIDS

Where we would like to be

- Science providing solutions and motivating action
- Ocean data and information system for past, present, and future
- Ocean literate and well-informed decisions
- Clear value chain leading to resourcing and commitment
- Capacity Development/Transfer of Technology: no one left behind
The Decade, both in terms of action and outcomes, needs to move beyond business as usual to a true revolution in ocean science

The transformative nature of the Decade will promote and facilitate Ocean Science that:

- Uses the 2030 Agenda as a central framework to identify and address the most pressing societal questions;
- Spans across disciplines and actively integrates natural and social science disciplines;
- Embraces local and indigenous knowledge as a key knowledge system;
- Communicates in forms that is widely understood across society and triggers behavior change;
- Is shared openly and available for re-use;
- Strives for generational, gender and geographic diversity and inclusion in all its manifestations.
- Is co-designed and co-delivered in a multi-stakeholder environment to be relevant and responsive across the entire value chain;
What is co-designed, solution-oriented research in the context of the Decade?

• What is transdisciplinary research?
• Lessons learned from transdisciplinary project?
• From interdiciplinarity to transdiciplinarity?

Question period
What is transdisciplinary research?

Carthage Smith
Lead Coordinator, Organisation for Economic Co-operation and Development (OECD) Global Science Forum
ADDRESSING SOCIETAL CHALLENGES USING TRANSDISCIPLINARY RESEARCH

www.oecd.org and i-library
https://doi.org/10.1787/0ca0ca45-en
Transdisciplinary Research

Key features of transdisciplinary research:

1. Collaboration between natural and social sciences/humanities
2. Engagement of non-academic stakeholders, such as public officials, citizens and commercial or not-for-profit organisations
Which problems require transdisciplinary research?

- Cooperation among a range of disparate stakeholders
- Systemic and rapid technological, environmental and/or social change
- Evaluation of the societal impacts and/or implementation strategies
- Intersection of academic/technological and non-academic/societal domains
- Ethical norms or value judgements
Framing problem

Producing new knowledge

Assessing new knowledge

Transdisciplinary research
  Dynamic collaboration of disciplines and societal actors

Realm of practice, relevance and design
  (Does it work?)

  Societal problems

  Using new knowledge

  Framing problem

  Producing new knowledge

  Assessing new knowledge

Realm of science, rigor and understanding
  (Is it true?)

  Scientific problems

  Using new knowledge

  Scientific breakthroughs

Solutions
  E.g., Policies and products

E.g., as publications
Transdisciplinary research and related concepts
Key parameters of transdisciplinary research projects

- Breadth/diversity of interdisciplinary
- Timing of participatory engagement
- Composition of non-academic partnerships
- Interaction with non-academic participants
- Depth of disciplinary integration
## 28 Case studies, TDR projects

<table>
<thead>
<tr>
<th>Lead Country</th>
<th>Subject Areas</th>
<th>Cases</th>
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<tbody>
<tr>
<td>Belgium</td>
<td>Food, land use, environment</td>
<td>3</td>
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<tr>
<td>Colombia</td>
<td>Traditional music</td>
<td>1</td>
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<tr>
<td>France</td>
<td>Climate change, transport, atmospheric pollution and health</td>
<td>2</td>
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<tr>
<td>Germany</td>
<td>Solar energy-food nexus, water resource management, agriculture</td>
<td>3</td>
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<tr>
<td>Japan</td>
<td>Natural disasters, energy, bio resources and disaster, mobility and ageing</td>
<td>3</td>
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<tr>
<td>Korea</td>
<td>Community policing</td>
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<tr>
<td>Netherlands</td>
<td>Water and health, CO2 emissions, energy</td>
<td>3</td>
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<tr>
<td>Norway</td>
<td>Climate change, risk governance, sustainable fish industry, Public health</td>
<td>4</td>
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<tr>
<td>Switzerland</td>
<td>Public health, water management, urban planning</td>
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<td>UK</td>
<td>Pig industry, solar energy</td>
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<tr>
<td>USA</td>
<td>Water resource, energy, health technology</td>
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## Recommendations

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<th>Governments</th>
<th>Research funders</th>
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<td>• Provide dedicated and sustainable resources for TDR.</td>
<td>• Provide long-term funding for TDR.</td>
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<td>• Facilitate the engagement of public sector actors (e.g., sharing the relevant public sector data)</td>
<td>• Support to establish centres of expertise and national networks.</td>
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<td>• Incentivise private sector to participate in TDR.</td>
<td>• Implement proactive management and monitoring of TDR.</td>
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<td>• Use multi-disciplinary and multi-stakeholder review processes and select peer-reviewers with prior experience in doing TDR.</td>
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<td>• Emphasise the evaluation of societal as well as scientific outputs and impacts.</td>
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<td>• Support capacity building and the participation of non-academic stakeholders.</td>
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## Recommendations

### Universities

- **Develop sustainable institutional structures and mechanisms, cross-department committees and meetings.**
- **Build long-term trusted relations with external stakeholder communities nationally and internationally.**
- **Introduce TDR learning modules into science education and postgraduate training courses.**
- **Support early career researchers who engage in TDR projects.**
- **Change evaluation and promotion criteria for individuals so that they are judged on their contributions to stakeholders outside of science too.**

### The academic community and science associations

- **Support innovative peer review and evaluation processes which would promote TDR.**
- **Support early career researchers who wish to engage in TDR.**
- **Contribute to the development of new STI indicators and measures that value multiple research outputs.**
Recommendations

**Intergovernmental Organizations**

- Build awareness of TDR into existing policy frameworks.
- Foster capacity building.
- Promulgate guidelines/best practices/case studies of TDR.
- Promote international alliances/networks and forums that bring together scientists and other stakeholders.
Lessons learned from a transdisciplinary project

Isabel Sousa Pinto
Member of the Multidisciplinary Expert Panel (MEP) of IPBES
Ciimar and Faculdade de Ciências, Universidade do Porto
1. What is IPBES?
The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

- IPBES’s mission:
  To strengthen knowledge foundations for better policy through science, for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

- An independent intergovernmental body, established in 2012 by Governments, with currently 137 Members

- IPBES’ first work programme (2014 - 2018), currently implementing its second work programme (2019 – 2030)

- Collaborative partnership arrangement with UNEP, UNESCO, FAO and UNDP

- Secretariat hosted by Germany, in Bonn
2. What Does IPBES Do?
What does IPBES do?
The work programme is grouped around 6 complementary objectives:

- Assessing knowledge (synthesis & critical evaluation of available knowledge)
- Policy support
  - Identifying policy-relevant tools and methodologies
  - Facilitating their use & catalysing their future development
- Building capacity
  - Identifying & meeting priority capacity needs of IPBES Members, experts & stakeholders.
- **Strengthening knowledge foundations**
  - Identifying and communicating gaps in knowledge to help fill them and advanced work on data
  - Enhanced work with indigenous and local knowledge
- Communicating and engaging
- Improving the effectiveness of the Platform
First work programme: establishing the knowledge base for decision making: 8 assessments produced
3. How is IPBES Structured?
How is IPBES Structured?

- **The Plenary**
  - Governing body of IPBES
  - Made up of member States
  - Usually meets once per year

- **Observers to the Plenary**
  - States not yet Members
  - Biodiversity-related conventions (e.g. CBD)
  - Related UN bodies
  - Other accredited organizations & agencies
  - **Including IIFBES – the International Indigenous Forum on Biodiversity and Ecosystem Services**

- **Stakeholders**
  - All contributors to & end-users of IPBES outputs including many IPLC groups
How is IPBES Structured?

- **The Bureau**
  - Oversees all administrative functions
  - Comprises Chair: **Ana Maria Hernandez**, four Vice-Chairs & five additional officers.

- **Multidisciplinary Expert Panel (MEP)**
  - Oversees all scientific & technical functions
  - 5 Experts from each of the 5 UN regions

- **Expert Groups & Taskforces**
  - Selected scientists & knowledge-holders
  - Carrying out assessments & other deliverables

- **Secretariat (incl. Technical Support Units)**
  - Implements IPBES work & administration
  - Supports Plenary, Bureau & MEP
  - Led by Executive Secretary: **Anne Larigauderie**
  - Hosted in Bonn, Germany
How are the different knowledge systems, disciplines, regions and gender integrated
How do we ensure the participation of the different regions, gender, disciplines, realms and knowledge systems in IPBES work?

- **Balance participation in all bodies o IPBES:**
  - Bureau (elected by GA – 2 per UN region)
  - MEP (elected by GA – 5 per UN region)

- **Task forces** – nominated by governments + society – selected by MEP+Bureau

- **Expert groups** - nominated by governments + society – selected by MEP+Bureau

### 5 task forces
- Capacity-building
- Data and knowledge
- **Indigenous and local knowledge**
- Scenarios and models
- Policy support tools and methodology

### 3 expert groups
- Assessment of values
- Assessment of the sustainable use of wild species
- Assessment on invasive alien species

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) is a global platform that assesses the benefits people derive from biodiversity, the threats biodiversity faces, and the measures needed to ensure their conservation. IPBES brings together governments, scientists, civil society, and other stakeholders in a collaborative and evidence-based process. It operates through a structured set of bodies (Bureau, MEP, task forces, expert groups) and ensures balanced participation and strong governance.
How do we ensure the participation of the different regions, gender, disciplines, realms and knowledge systems in IPBES work?

• **Main challenges:**
  • Majority of nominations are from scientists in the natural sciences and terrestrial focus
  • There is a gap in experience in nominations from different regions
  • Lack of experience/methods for integration knowledge from different systems while maintaining credibility for all

• **Actions:**
  • Call for expert nominations specify needs of different disciplines, realm focus and knowledge systems
  • Targetting different networks (e.g. social sciences, marine, ILK, practitioners, private sector, under-represented regions) for dissemination of calls
  • Assistance from national focal points, MEP and from ILK TF and other groups
  • Assemble balanced expert lists (MEP and Bureau)
  • Procedure of gap – filing of missing expertise/knowledge system
Thank you!
From interdisciplinarity to transdisciplinary

Ass. Prof. Dr. Alice Vadrot
Principal investigator of the European Research Council (ERC) funded research project MARIPOLDATA
Inter- and transdisciplinarity in MARIPOLDATA

(1) **An interdisciplinary research team:**
- Team composed of social science scholars with different backgrounds (Computational Social Science, International Relations, Law, Public Administration, Political Science)
- Collection of different types of quantitative and qualitative data at different scales

(2) **Transdisciplinary engagement at different stages:**
- *Project development stage:* Interviews and consultation with marine scientists and participation in scientific events and conferences (EU-BON, GEO-BON, especially workshops related to marine biodiversity observation)
- *Project Kick-off:* Participants from Academia (diverse disciplines), NGOs, Austrian Ministries (Foreign Affairs, Education and Research, Environment), Austrian Parliament, IGOs
- *In-between:*  
  - *Small Workshops:* Presentation of preliminary data (Bibliometrie/Ethnography) to Diplomats, Marine Scientists, Law of the Sea Experts, NGO representatives  
  - *Feedback loops during research design, analysis and writing process:* by Marine Scientists, Diplomats  
  - *Public engagement:* Radio broadcasts, videos, newspaper articles, blogs

This project has received funding from the European Research Council (ERC) under the European Union’s Horizon 2020 research and innovation programme under grant agreement No 804599.
Conditions and Challenges for inter- and transdisciplinarity

**Conditions for inter- and transdisciplinary work:**

- Regular communication and contact
- Building relations of trust: mutual understanding and respect  ➔ patience
- „Translational work“
- Involvement at different stages
- Find appropriate formats/scopes/purposes
- Flexible degree of formalization/inclusiveness
- Recognise local, regional, national “cultures” in/of:
  - Scientific/policy/work traditions
  - Traditions of science advice/science communication
  - Recognition of expertise by scientists/policy makers/public
  - Relationships and networks

**Challenges of engaging with stakeholders:**

- Availability of resources: Time, Personal
- Different needs (Publication vs. Information)
- Different reward systems/institutional needs
- Different temporalities
- Recognition by universities/research centres  ➔ especially in the social sciences, recognition for transdisciplinary work is rather low
- Maintaining interest and long-lasting relations (institutionalizing relationships)
- Political implications/interests/sensitivities
What is co-designed, solution-oriented research in the context of the Decade?

Please type your questions in the Question pane.
2 - What is co-designed, solution-oriented research in the context of the Decade?

• How to build the appropriate funding structure to foster inclusive approach?
• How to address institutional barriers to transdisciplinary research?
• How to increase the role of private sector?
• How to reinforce the science-policy interfaces for transformative ocean governance?
• How to build on and strengthen regional ocean governance?

Question period
How to build the appropriate funding structure to foster inclusive approach?

Josh Tewksbury
Interim Director of Future Earth
How to address institutional barriers to transdisciplinary research?

Shuaib Lwasa
LIRA 2030 programme, Climate Change Research and Environmental Sciences Makerere University, Uganda
How to increase the role of private sector?

Wenche Gronbrekk
Head of Sustainability and Risk for the Cermaq Group
How to reinforce the science-policy interfaces for transformative ocean governance?

Kristina Gjerde
High Seas Policy Advisor for the International Union for Conservation of Nature Global Marine and Polar Program and member of the Executive Planning Group of the Decade
How to build on and strengthen regional ocean governance?

Ben Boteler
Project Coordinator at the Institute for Advanced Sustainability Studies
Question period

What How to foster co-designed, co-production and co-delivery in ocean research??

*Please type your questions in the Question pane.*
Next Steps

Alison Clausen
Programme Specialist for the Intergovernmental Oceanographic Commission (IOC-UNESCO)
Overview of ‘1st Call for Decade Actions’

• First ‘Call for Decade Actions’ for two types of large-scale Actions:
  1. Global or major regional programmes
  2. Contributions including support to central or decentralised coordination functions
• Open 15 October 2020 to 15 January 2021 with decisions in Q1 of 2021
• No geographic or thematic restrictions
• Suite of inter-related documentation to support ‘Call for Decade Actions’
• Two live Q&A sessions planned for applicants
• UN entities registration process will be opened in parallel
• More details will be made available on social media and www.oceandecade.org - sign-up to receive further updates!
Next steps & key milestones

- **September to December 2020**: Negotiation of omnibus resolution by United Nations General Assembly including Implementation Plan
- **15th October 2020**: Launch of first “Call for Action” for Decade programmes and contributions
- **Early December 2020**: High-level supporters event including pre-launch of the Ocean Decade Alliance (possibly in line with Our Ocean Conference)
- **1 January 2021**: Decade starts
- **January – July 2021**: Progressive roll-out of Stakeholder Engagement Mechanisms
- **March – April 2021**: Decisions on first group of endorsed Decade Actions (programmes and contributions)
- **31 May – 2 June 2021**: First International Ocean Decade Conference, Berlin
- **?? 2021**: 2021 UN Ocean Conference, Lisbon
THANK YOU

Coming up next