

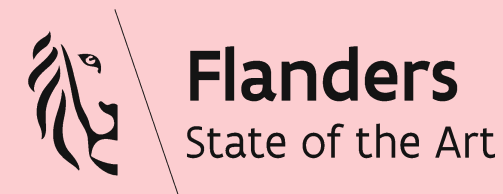
Translating Research Results Into Policy Advice

Andrew Dunn

Policy and Communications Officer

Nidhi Nagabhatla

Senior Research Fellow



Imagine...

You're an elected official serving on a committee that sets the standards cars must meet to pass the mandatory annual inspection.

You know that this is a complex issue, and you'd like to learn more about existing policies, the effects of emissions on the environment and on public health, the economic consequences of different possible approaches, and more – you want to make an informed decision.

But you don't have time to research all of these issues...

POLICYBRIEF

No. 07, 2023

Interregional Human Rights Cooperation Between the European Union and Latin America and the Caribbean: Challenges and Opportunities

Maria Martins

Highlights

1. Despite the complex and multifaceted nature of relations, the European Union (EU) and Latin America/Caribbean (LAC) share an aligned framework of values including democracy, rule of law, and a preference for multilateralism that demonstrates strong potential for an impactful partnership to promote human rights globally. However, strengthening collaboration on human rights issues is not yet a strategic priority.
2. There is immense, untapped potential for cooperation between the EU and LAC on human rights advocacy and policy at the multilateral level. Enhancing the existing partnership significantly could maximize influence on the world stage.
3. This policy brief aims to identify specific opportunities and structural challenges to improving EU-LAC human rights cooperation, with an emphasis on ties between the EU and Brazil.
4. Through systematically reviewing existing literature and interviewing diplomats and civil society members, it provides targeted recommendations on how to bolster the EU-LAC human rights partnership moving forward.

Introduction

Relations between the European Union (EU) and Latin America and the Caribbean (LAC) are multi-dimensional (trade, political cooperation, security, environmental, human rights, etc.), and they are characterised by multi-faceted cooperation channels. (Gratius 2012; Sanahuja 2015; Dominguez 2015). A prominent example of this complexity is the EU-LAC cooperation in the field of human rights, as it does not only take place at the bilateral and interregional levels but also in multilateral forums (i.e., UN Assembly, UN Human Rights Council). However, cooperation in this field has remained vastly unexplored, as there is a predominance of a monothematic discussion in the inter-regional and bilateral summits on the ratification of trade agreements, such as the ongoing EU-MERCOSUR (Southern Common Market) negotiations (Luciano 2022; Ayuso et al. 2018; Haider and Batalla 2020).

This is not only due to interest in facilitating inter-regional trade, but it also reflects the fact that trade is an area where the European Commission has notable autonomy to negotiate the inter-regional EU-LAC relations. Thus, the discussions of inter-regional EU-LAC relations are sensibly influenced and, consequently, it becomes more difficult to further invest in other areas of cooperation, such as human rights.



cris.unu.edu

POLICYBRIEF

No. 03, 2023

One Year Later: What Lessons Should Policymakers and Scholars From the EU Draw From Russia's Invasion of Ukraine?

Fabienne Bossuyt

Highlights

1. This policy brief argues that scholars should no longer study the countries in Eastern Europe from the angle of EU-Russia competition, rather they need to account more explicitly for the agency of these countries.
2. The war has painstakingly revealed that policymakers and scholars knew little about Ukraine. This lack of knowledge led to significant misinterpretations of Ukraine as a country and its relationship with Russia.
3. Ukraine occupies a central role in Russia's historical imagination and identity construction. Even if a peace agreement is reached between Ukraine and Russia, it is very likely that Russia will continue to harass Ukraine, because in Moscow's view Ukraine has no historical right to exist as a sovereign state.
4. Now that the EU has fully embraced Ukraine by offering it unprecedented military, moral and financial support to fight Russia, as well as by offering it a membership perspective, the EU needs to move to a Russia-second, and others-first policy.

Correcting Assumptions

This policy brief focuses on the lessons that policymakers and scholars from the European Union (EU) can draw from Russia's war against Ukraine for the EU's future relations with Ukraine and with Russia.

First of all, for scholars like myself who study the EU's engagement with the post-Soviet region, one crucial lesson that has emerged from this war is that we have for too long overlooked the agency of the so-called in-between countries. For too long, we have been preoccupied with looking at the region through the prism of EU-Russia competition over their so-called 'shared' neighbourhood; and in doing so, we were obsessed with the agency of the EU and Russia, and fatally ignored the agency of the countries situated between the EU and Russia.

If there is one thing that this war has shown us, it is that those so-called in-between countries undoubtedly have agency, and their agency matters. We can no longer study the countries in the region purely from the angle of EU-Russia competition; instead, we need to account more explicitly for the agency of the countries in the region. When it comes to acknowledging the agency of Ukraine, the war has painstakingly revealed that we know embarrassingly little about this country.



cris.unu.edu

POLICYBRIEF

No. 01, 2023

Youth Participation at the Internet Governance Forum

Nadia Tjahja and Carlos Fonseca

Highlights

1. The term youth encompasses many different forms based on self-identification and community designated identification which impacts their engagement with the IGF. In essence, how do you perceive yourself, and how does the community perceive youth?
2. We addressed five themes of engagement that elaborated on how youth are being empowered and what barriers they face in the IGF: accessing the IGF, the youth voice, availability of resources, integration of youth activities, feedback, and encouraging youth participation.
3. We propose six recommendations which will support a growing youth community at the IGF: co-ownership within IGF spaces, integrating youth voices, programmes for returning participants, educator and student participation, establishing an IGF database of resources, and changing funding barriers.

Introduction

The United Nations Secretary-General's (UNSG) vision on the future of global cooperation was presented in the UN 'Our Common Agenda' report, in which one of the categories aims to enhance youth engagement and to take 'future generations into account' in policy decisions (United Nations, 2022). Additionally, the European Union (EU) and the Association of Southeast Asian Nations (ASEAN) have made youth central to their engagement agenda by declaring 2022 as the year of youth (UNSEAN, 2022; European Commission, 2022).

The Internet Governance Forum (IGF) – a multistakeholder dialogue platform held under the auspices of the UN – is in the unique position to be a space in which youth can learn about and participate in discussions on internet governance and develop their capacity to participate in the processes that lead to decision-making. The IGF spaces are evolving, however, and discussions regarding the way stakeholders see global cooperation and the future of multistakeholderism, while these changes are being made by and with acknowledged stakeholders according to the 2025 Tunis Agenda (World Summit on the Information Society, 2005), youth who are not structurally or systematically represented should not be forgotten.



cris.unu.edu

You need a policy brief.

What is a policy brief?

- A communications tool that gives context to a problem and recommendations to non-specialists
- Concise, stand-alone document focused on a single policy topic
- Written in plain, straightforward language - avoids academic jargon
- Distils and summarises key research findings
- Draws clear links between research and policy initiatives
- Short format, ideally 2-6 pages
- May use visual aids like charts to highlight data
- Translates complex research into accessible, actionable advice
- Targets policymakers to inform decisions and initiatives

Who is a policymaker?

- Government ministers
- Members of parliament
- Special advisors
- Civil servants
 - key people, as it all starts with them
- Political parties
 - Parties have research groups
- Think tanks
- Anyone who makes strategic decisions
 - Principals of schools
 - Board members
 - Union leaders
 - Business executives

So, how do you do it?

Four main points:

- Purpose
- Audience
- Content
- Structure

Purpose

To raise awareness about a specific problem, identify potential policy solutions, and provide concrete recommendations.

- Be clear about your stance from the start:
 - This is the issue
 - This how urgent it is
 - If you follow my (expert) advice, I can help you fix it
- Define what you would (realistically) consider a win.

Everything in your policy brief should be in service of the purpose, so be sure to write it out at the start of the journey.

Ask yourself often throughout the process – am I still working towards the goal?

Audience

Your goal with a policy brief isn't to reach everyone, it's to reach a specific group of people, sometimes very small in number.

Defining your audience is perhaps the most important step:

- Who will be reading it? Where do they work? Which policies have they been involved in creating recently? Which events have they been to/spoken at recently? What is their dog's name?
- Write with them in mind. It is a luxury in academic/policy writing to know exactly who should/will be reading, so use this advantage.
- How detailed is their knowledge of the subject?
- How much authority do they have to dictate the policies you're targeting?

Everything in your policy brief should be in service of the purpose, so be sure to write it out at the start of the journey.

Content

Results of two surveys of around 500 US and UK policymakers found that policymakers find much scholarly work inaccessible.

They want researchers to write in plain language.

Long reports are not useful – hence the need for policy briefs.

Content

Guiding principles: clear, succinct, focussed

Effective policy briefs contain the same key elements and similar structures:

- an executive summary/highlights
- an introduction
- an overview of the research or problem
- an examination of the findings
- a concluding section that provides policy recommendations

Content

Title

A good title is crucial to capture the interest of your readers.

It should immediately communicate the content of the brief in a memorable way.

Base it on the main idea and include key words.

Content

Executive Summary/Highlights:

- Every policy brief should open with a short summary.
- This overview should be engaging and help busy readers quickly understand your argument.
- An effective executive summary/highlights should condense the essence of the brief down to a few sentences.
- The executive summary/highlights should always appear on the cover of the brief or at the top of the first page so that it is the first thing a reader will see.
- It can be helpful to write the executive summary/highlights last because you will gain clarity on its content as you draft the other sections.

Content

Introduction

- The introduction should set up the rest of the document and clearly convey your argument.
- In one or two paragraphs, define why you are writing the brief and express the urgency and importance of the topic to your audience.
- A good introduction should contain all of the relevant information for your argument.
- Describe the key questions of your analysis and your conclusions.
- The goal is to leave your readers with a clear sense of what your research is about while enticing them to continue reading.

A good test: Read your introduction out loud to a person who is not familiar with the topic you're writing about. The person should then be able to repeat the main purpose of the brief - **what is this brief about and why it is important.**

Content

Research Overview

- This is one of the most important sections of the brief because it explains the reasoning behind your policy recommendations. In effect, this section describes the problem that your policy recommendations intend to solve.
- Provide a summary of the facts to describe the issues, contexts, and research methods. Focus on two main elements: the research approach and the research results.
 - Research approach: explain how the study was conducted, who conducted it, how the data was collected, and any other relevant background information.
 - Research results: paint a general picture of the research findings before moving on to the specifics.
- Avoid jargon and overly technical language.
- Focus on highlighting the benefits and opportunities stemming from the research.

Content

Research Findings

- Should interpret the data in a way that is accessible and clearly connected to your policy advice.
- Use active language.
- Be convincing, yet ensure that your analysis is balanced and fair.
- Clearly and comprehensively explain the findings and limitations of the research.
- Relate to concrete realities instead of abstract, theoretical constructs, so the reader will have a clear idea of the potential effects of policy initiatives.

Content

Conclusion and Recommendations

- Draw the link for your readers between the research findings and your recommendations.
- Implications: “What I show above is X, that is why we need Y.”
- These can be in paragraphs or bullet points, but should always be numbered.
- You want your readers to be completely convinced that yours is the best advice.
- Think of the conclusion and recommendations as a mirror to your introduction: you are once again providing an overview of your argument, but this time you are underlining its strength rather than introducing it.

Design

Text is not enough. We need to be visually stimulated.

Good design can keep the reader engaged.

Design

Titles and Headers

- Titles are reference points and lead the readers
- Use subheadings or headings to break up the text and highlight each section's main topic.
- Make headings more interesting with active verbs.
- Ask questions in headings to make readers curious.
- Keep headings informative but concise.

Design

Information Boxes

These visually break up the content and improve readability.

They should be:

- Brief
- Descriptive
- Engaging
- Action-focused

would provide critical information and raise awareness on the perceived risk to certain seaweed species in the wild. The listing of these species, would, therefore, help support protection measures, although the long-term monitoring and accurate species identification tools needed to carry out these IUCN assessments is often lacking.

What conservation measures exist for other marine species and their habitats?

Numerous examples exist globally of species being overfished/harvested to extinction or near extinction. Long-term data sets, collected predominantly through fisheries monitoring programmes, suggest that worldwide, over one-third of fish stocks have been harvested beyond biologically sustainable limits. These datasets have also provided the evidence to support the introduction of national and international regulatory frameworks (e.g., to protect high risk fish stocks). For many species, however, particularly marine invertebrates and seaweeds, the lack of baseline distribution data and long-term harvesting records, mean that tracking any decline in stocks through over-harvesting is typically only done at local or regional scale. For example, the white abalone was over-harvested to near-extinction on the Pacific coasts of the USA and Mexico and the American

DID YOU KNOW?

- Approximately 200 seaweed species are harvested from the wild and over 80 species are reported as currently farmed commercially worldwide.
- A very low proportion of seaweeds have been assessed for the IUCN Red List (423 species worldwide) and taxonomic uncertainties remain with a number of these species.
- The presence of a species on the Red List does not infer conservation protection.
- Almost no seaweed-specific legislation exists globally and there are almost no Marine Protected Areas (MPAs) (or equivalent) specific for seaweeds or their habitats with statutory status, despite many MPAs overlapping with the seaweed industry (Fig. 2).
- Designated MPAs (or equivalent) rarely mention seaweeds or seaweed habitats directly.
- International database reports for wild harvesting and/or cultivation of seaweeds lack consistency in naming seaweed species, leading to inaccuracies and under-estimation of quantities harvested or cultivated.

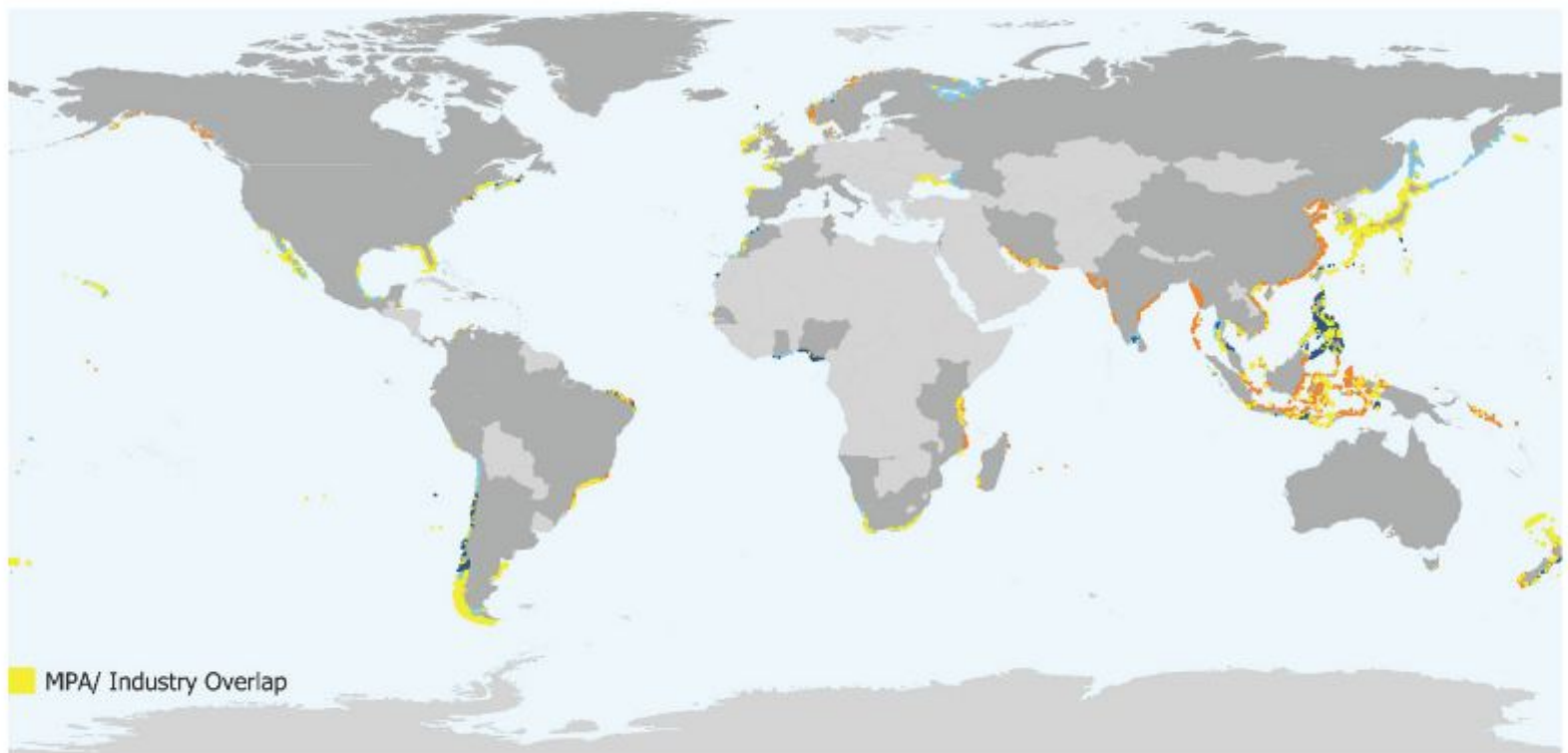


Figure 2. Spatial distribution of areas where Marine Protected Areas (MPA) and the seaweed industry overlap, as marked in yellow.
Source: Mallinson et al. (unpublished data).

Design

Graphics/Standout Quotes

Serves many purposes:

- Reinforces your argument
- Highlights key information
- Catches the attention of skimmers

Use different visuals depending on your audience

Include captions for photos, to explain the content to the reader and make things more personable

Eucheuma, *Gracilaria* and *Gracilaria*. Unlike land-based plant production systems, seaweed cultivation requires minimal fertilisers and no freshwater input. Seaweeds can be cultured from shallow nearshore waters up to tens of kilometres offshore, either in monoculture or with other maritime activities, such as finfish aquaculture or renewable wind energy. The sustainable cultivation and harvesting of

Wild seaweed communities, however, are suffering acute declines in regions where they have been historically abundant. To date, seaweeds appear to have demonstrated a high degree of resilience to disturbance due to their fast growth rates and frequent recruitment, in comparison to other marine foundation species such as corals, which have much slower growth rates. Nevertheless, kelp forests

in particular are predicted to lose up to 71% of their current distribution under the RCP 6.0 CO₂ emission scenario by 2100. This is in addition to the declines they are already facing through overharvesting for food, and supplying the seaweed aquaculture industry with new stock, coupled with outbreaks of

Wild seaweed stocks and seaweed cultivation, therefore, offer a nature-based, carbon neutral and climate resilient solution to climate change, ecosystem restoration and food security.

seaweeds can reduce poverty and generate wealth in coastal communities. It can also restore ecosystems degraded by eutrophication through nitrogen and phosphorus uptake. For example, a study in China showed that the seaweed aquaculture industry removed approximately 75k tonnes of nitrogen and 9.5k tonnes of phosphorus annually, which given the current growth rate, is predicted to remove close to 100% of anthropogenic phosphorus inputs by 2026. Social acceptance for seaweed cultivation is, therefore, typically high compared with other forms of aquaculture.

pests and diseases and other climate-driven impacts. Despite their ecological and economic importance, these communities receive minimal or no protection through policies or legislation globally.

This policy brief highlights the challenges facing wild seaweed stocks globally and provides recommendations to incentivise their protection worldwide. These recommendations will help to ensure that the seaweed industry has access to highly diverse wild stocks from which

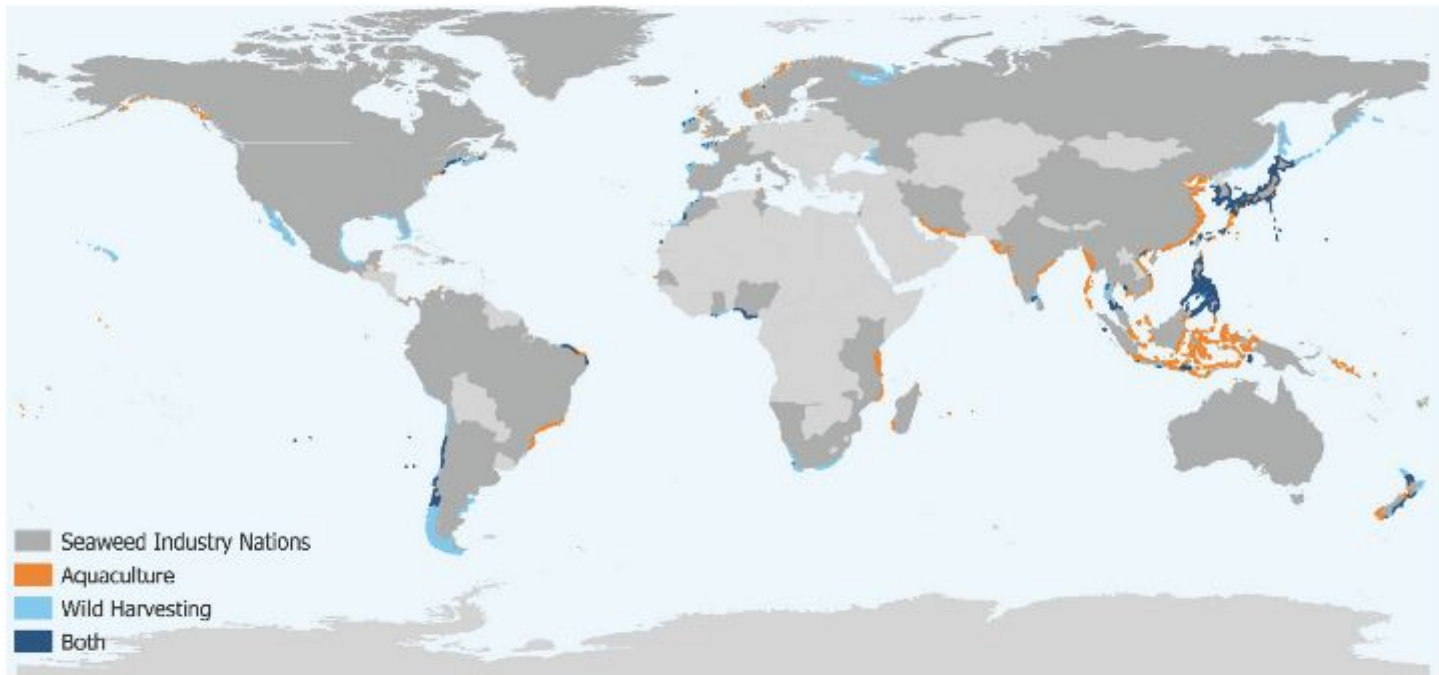


Figure 1. Spatial distribution of the global seaweed industry. Nations with seaweed industries are marked in dark grey, those with seaweed aquaculture areas highlighted in orange, with wild harvesting in light blue or with both in dark blue.

Source: Mallinson et al. (unpublished data).



Seaweed farmers returning their harvest to shore in Malaysia. Photo: P-E Lim/University of Malaya

to develop new cultivars and can improve the long-term resilience of wild stocks to climate change and other human-induced threats. They also promote seaweed habitats as areas in the ocean, which can provide a nature-based solution to ocean restoration within the ocean economy agenda and function as a key contributor to the UN Decade of Ocean Science for Sustainable Development (2021 – 2030).

The decline of wild seaweed stocks and the wider consequences

Wild seaweed stocks provide both direct and indirect benefits to the surrounding environment on both a range of spatial and temporal scales. These benefits include: i) the provision of nursery habitats and food resources for a multitude of species including commercially valuable fish and crustaceans, ii) the removal of dissolved nutrients, iii) the protection of underlying seabed and adjacent coastal shores through the mitigation of wave action and iv) the provision of a rich genetic diversity of species, which can provide a source of new cultivars for the seaweed aquaculture industry. These wild seaweed stocks and their wider ecosystem services, however, are under increasing threat from direct and indirect anthropogenic activities. Physiological and ecological responses to climate change and other stressors are being increasingly seen. This is particularly the case in the tropical cultivated seaweeds, which are showing a greater

susceptibility to disease, pests and invasive non-indigenous species. Seaweed-dominated ecosystems are also shifting poleward, retracting or even disappearing worldwide. These threats, however, are not being addressed in many countries, since baseline species check-lists, consistency in the naming of seaweeds by the industry and the routine monitoring of wild seaweed stocks is minimal if present at all. The under-reporting of wild seaweed harvesting globally has also led to a lack of international awareness regarding the extent of the problem. This ultimately threatens the long-term future of the seaweed aquaculture industry and the critical ecosystem services provided by wild seaweed stocks.

Global conservation status of wild seaweeds and their habitats

The International Union for the Conservation of Nature (IUCN) Red List of Threatened Species is an authoritative tool in biodiversity conservation, which is used to assess the risk of species extinction. Whilst the IUCN criteria are intended to be objectively applicable to all species of plants and animals, particular challenges are found in applying these to seaweeds (see Did You Know box). The Red List, however, remains a useful tool in the conservation toolkit due to its wide global acceptance and objective approach. Applying the IUCN criteria to vulnerable seaweeds (i.e., wild seaweed stocks identified as being over-harvested), for example,

Over to you, Nidhi.



Seven points towards enhancing the effectiveness of translating research into actionable policy advice Or/and translating research results into policy advice:

1. **Effective Communication:** Summarize research findings in clear, accessible language through policy briefs to facilitate understanding and action.
2. **Stakeholder Engagement:** Collaborate with policymakers and community partners throughout the research process to ensure relevance and increase adoption chances.
3. **Implementation Science:** Use implementation science methods to design studies directly applicable to real-world policy contexts.
4. **Mixed-Methods Approaches:** Combine quantitative and qualitative data to comprehensively understand policy implications, capturing outcomes and experiences.
5. **Timing and Relevance:** Align research with current policy priorities and provide timely evidence to enhance the likelihood of uptake.
6. **Building Relationships:** Foster ongoing relationships between researchers and policymakers to facilitate knowledge exchange and improve research adoption.
7. **Considering Context:** Account for the specific political, social, and economic factors influencing the adoption of research findings in the policy environment.

POLICYBRIEF

No. 09, 2024

Forging Sustainable Green Hydrogen Regional Alliances: Uruguay's and Germany's Path to Equitable Energy Security

Ricarda Leske, Tamara Avellan and Nidhi Nagabhatla

Highlights

- Green hydrogen is a key solution for climate change mitigation, aiming to reduce carbon emissions by 2050. It is produced using renewable energy and water and is vital for decarbonizing sectors like transport, industry, and steel production.
- Germany and Uruguay have emerged as important players in the green hydrogen landscape, each with distinct strategies. Germany, with limited domestic production potential, focuses on importing green hydrogen and establishing international partnerships.
- Uruguay aims to become a green hydrogen exporter, leveraging its renewable energy capacity. Its strategy focuses on developing a green hydrogen economy, with plans to produce 10 GW of green hydrogen annually by 2040.
- In the context of green hydrogen, interregional collaboration can play a crucial role, as exchange on green hydrogen projects can foster effective partnerships, technological exchange, shared investment, and policy alignment.

Introduction

Green hydrogen is widely regarded as a key solution in the climate change debate and is positioned as vital to significantly reducing carbon dioxide emissions by 2050. Produced using renewable energy and water, green hydrogen acts as a zero-emission energy carrier and plays a crucial role in decarbonizing challenging sectors such as transport, industry, steel production, and fertilizers. Green hydrogen represents a critical component of the global transition to sustainable energy, with distinct strategies emerging across different regions.

On the one hand, Germany needs to import green hydrogen to meet its growing energy demand, as domestic production potential is limited. This creates a significant gap that must be filled through bilateral energy partnerships. Germany introduced its first official federal hydrogen strategy in 2020, positioning itself as a global leader in the green hydrogen economy. This strategy focuses on expanding hydrogen infrastructure, developing legislative mechanisms, and promoting green hydrogen production and usage to secure future energy supplies. On the other hand, Uruguay aims to position itself as a green hydrogen exporter and integrate green hydrogen into its domestic energy mix. Uruguay's Green Hydrogen Roadmap, initiated in 2018, outlines a plan to leverage the country's renewable energy capacity to develop



POLICYBRIEF

No. 15, 2024

Ecosystem-based approaches for integrating disaster risk reduction, climate, land and biodiversity goals

Yvonne Walz, Lisa Hartmann, Sally Janzen, Jack O'Connor, Fabian Rackelmann, Marisol Estrella, Chawanangwa Nyirenda, Sandra Amlang, Kristin Meyer, Iria Touzon Calle, Veronica Ruiz Garcia, Dorsa Sheikholeslami, Jeroen Jurriens, Heidi Tuhkanen, Irfan Maqbool, Nidhi Nagabhatla, Johann Georg Goldammer, Nathalie Doswald, Karen Sudmeier-Rieux

Key recommendations

Leverage ecosystem-based approaches as entry points to align policy objectives and address multiple goals of the Rio Conventions and the Sendai Framework simultaneously and effectively

Ecosystem-based approaches can contribute to the specific goals of the Rio Conventions and the Sendai Framework for Disaster Risk Reduction (hereafter Sendai Framework). Each Convention has certain goals, targets, tools and processes where ecosystem-based approaches could be emphasized, and their use has been explicitly encouraged in specific targets and decisions related to the Rio Conventions and the Sendai Framework. There is a need for enhanced collaboration among the Rio Conventions and the disaster risk reduction community, to align existing policies and frameworks across sectors and to mainstream multi-goal-oriented, ecosystem-based approaches in national and local-level policy and planning. This can significantly reduce programme costs and increase effectiveness at the same time.

Promote and apply integrated spatial planning tools

Ecosystem-based approaches are inherently "place-based", meaning that they are implemented within specific

geographic areas or landscapes. A forward-looking strategy to address multiple goals using ecosystem-based approaches in strategic and project-based development planning involves applying integrated spatial planning tools, which can be used in terrestrial, inland water, coastal and marine ecosystems. Geospatial data (on disaster risks, ecosystem health, vulnerability, exposure and impacts) enable the use of indicators to track progress under the different Conventions and the Sendai Framework. Such data can also support more transparent and inclusive decision-making processes, by recognizing and integrating diverse knowledge systems, including Indigenous and local knowledge.

Bring science on board to plan and implement multi-goal-oriented, ecosystem-based approaches

Scientific evidence has shown that ecosystem-based approaches can be implemented more efficiently when integrating multiple goals and objectives (for example, disaster risk reduction and biodiversity conservation). This can avoid unintended consequences such as reduced water availability, changes in the composition of biodiversity and adverse livelihood outcomes. Multi-hazard risk assessments and scenario planning, and collaborations such as the Science Based Targets initiative, can ensure that actions are targeted and that they consider the potential trade-offs between multiple goals. Research efforts to address data gaps and



unu.edu/ehs



POLICYBRIEF

No. 01, 2024

Understanding Multifunctionality of Constructed Wetlands in Agricultural Settings in the European Region

Tamara Avellan^{1,6}, Alba Canet-Martí², Eriona Canga³, Valentina Guerrieri⁴, Simone Amadori⁴, Aashritha Marco Hartl³, Nidhi Nagabhatla⁶

Highlights

- Environmental Benefits and Social Innovation:** Environmental factors play a crucial role in the implementing Constructed Wetlands (CWs) in agriculture. Yet, fostering social innovation is the key to success in farming.
- Constructed Wetlands as Nature-Based Solutions:** CWs are natural solutions that could offer a range of benefits, but they also come with trade-offs that must be considered carefully and cautiously.
- Diverse CW Technologies for Specific Contexts:** Various CW technologies exist, each tailored to be more advantageous in particular settings and agricultural contexts. Also, it is crucial to assess 'the immediate 'Farm-Level Return of Investment (RoI)' as quick returns on investment may be challenging at the farm level, the actual benefits are more likely to be realised at the landscape or catchment level.
- Promoting CW Adoption with Subsidies:** Implementing CWs' social and environmental advantages must be weighed against associated economic costs. Therefore, providing financial subsidies to farmers or groups could be a promising strategy.
- Sustainability-focused Approach:** A holistic perspective considering environmental, social, and economic sustainability remains critical for making well-informed decisions that benefit society (farming communities and individuals). To facilitate sustainability, understanding is enabled through 'serious gaming', an effective project to better comprehend challenges and opportunities associated with implementing technologies for sustainable farm management.

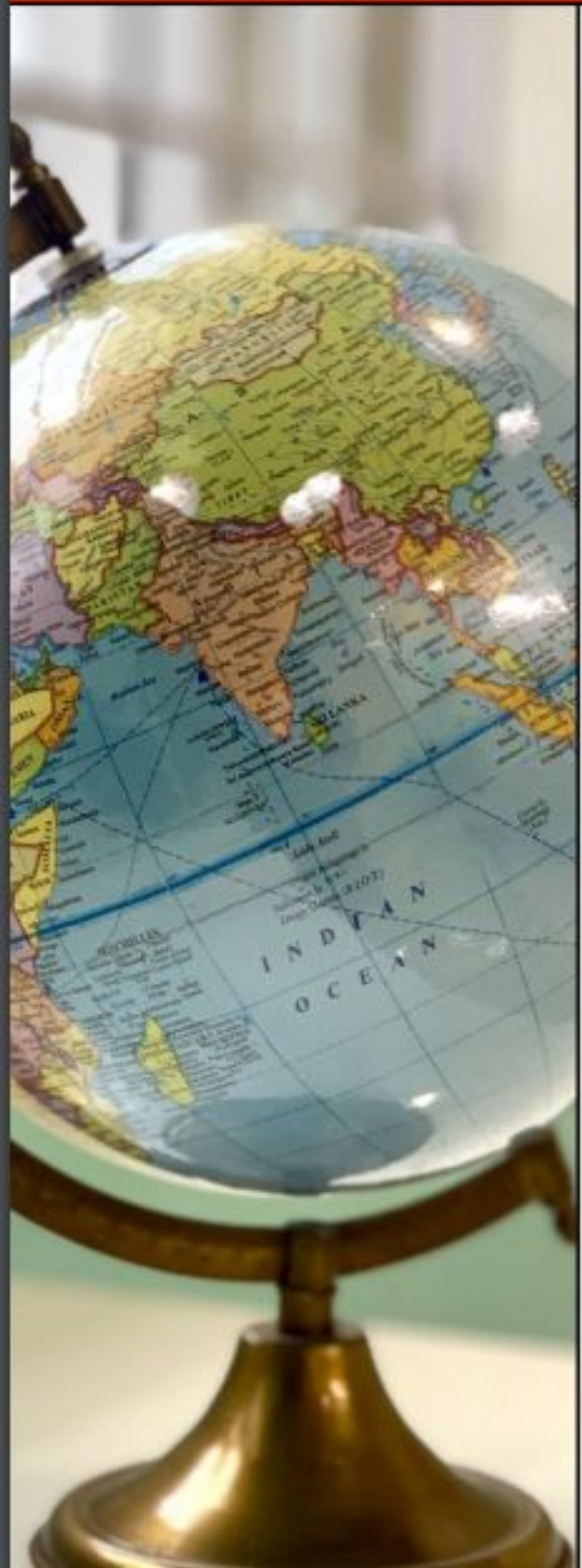


UNITED NATIONS
UNIVERSITY
UNU-CRIS
Institute on Comparative
Regional Integration Studies



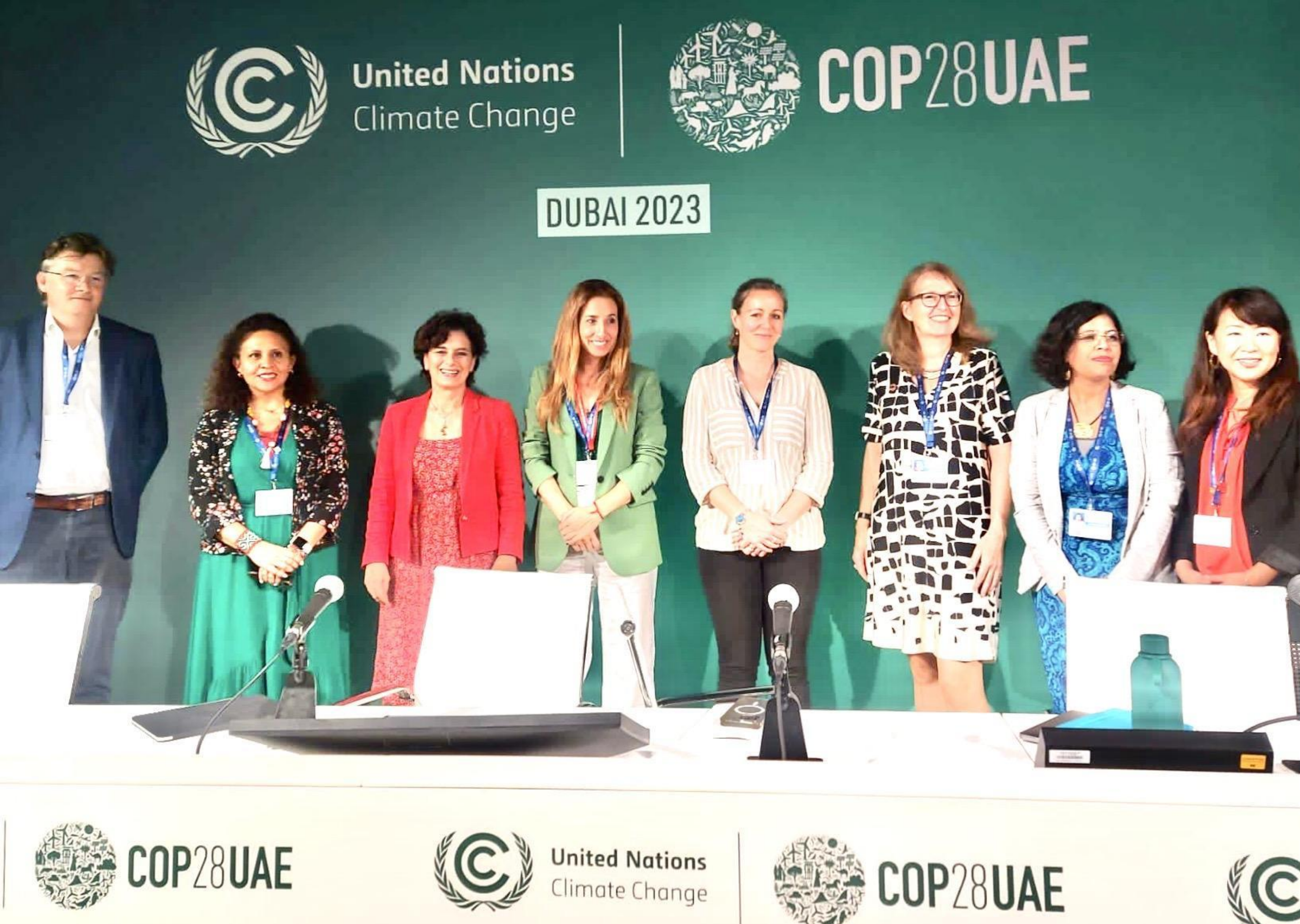
POLICY BRIEF
#06 2021

Ensuring the Sustainable Future of the Rapidly Expanding Global Seaweed Aquaculture Industry - A Vision



Highlights

- This policy brief highlights key challenges that must be addressed for the long-term sustainability of the global seaweed industry, ensuring its role in providing nature-based solutions within the sustainable ocean economy agenda and in contributing to the UN Decade of Ocean Science for Sustainable Development (2021 - 2030).
- Seaweed production has grown rapidly over the past 50 years. It currently accounts for over 50 % of total global marine production, equating to ~35 million tonnes. In 2019, the industry's total value was estimated at USD 14.7 billion. The seaweed value chain supports the livelihoods of approximately 6 million small-scale farmers and processors, both men and women, many of whom live in coastal communities in low- and middle-income countries.
- The aquaculture sector is increasingly interested in seaweed because of its potential for greater use in food, food supplements, animal feed, fertiliser and biostimulants, and in alternatives to fossil fuels and their derived products, such as plastics. Its cultivation can help restore degraded environments, increase ocean biodiversity and mitigate the effects of climate change and coastal acidification by capturing carbon and other nutrients. In low-, middle- and high-income countries, the seaweed industry has a wide-ranging potential to address the UN Sustainable Development Goals (SDGs) in particular, SDG 14 (life below water), SDG13 (climate action), SDG6 (decent work and economic growth) and SDG5 (gender equality).
- The global seaweed industry, however, faces significant challenges. For future sustainability, improvements are urgently needed in biosecurity and traceability, pest and disease identification and outbreak reporting, risk analysis to prevent transboundary spread, the establishment of high quality, disease-free seed-banks and nurseries and the conservation of genetic diversity in wild stocks.
- These improvements require technological innovation, capacity building and effective gender-responsive and co-ordinated policies, incentives and regulations. They will need to enhance occupational safety, whilst increasing the industry's resilience to the impacts of climate change and production hazards, such as pest and disease outbreaks. To align with the SDGs, particular attentions will need to be paid to small scale farmers and processors to ensure that the globalisation of seaweed aquaculture supports the development of sustainable, resilient and inclusive livelihoods.



UNU
CRIS



VRIJE
UNIVERSITEIT
BRUSSEL



GHENT
UNIVERSITY



Flanders
State of the Art



Thank you!

adunn@cris.unu.edu

<https://www.linkedin.com/in/andrew-dunn-/>

nnagabhatla@cris.unu.edu

<https://www.linkedin.com/in/nidhi-nagabhatla>

