



## Who Submitted Comments in Advance of the Ocean Dialogue

The Ocean Dialogue process welcomed submissions by both State Parties and non-state stakeholders (herein “States Parties” or “Parties” refers to those states or groups of states that are parties to the UNFCCC). Submissions to guide the Ocean Dialogue illustrate the diversity of ocean-climate stakeholders and the diverse regimes involved (Fig.2). Submissions were made by 20 Parties, individually or in groups (e.g., Least Developed Countries (“LDCs”), Alliance of Small Island States (“AOSIS”), Office of the Pacific Ocean Commissioner (“OPOC”)/Secretariat of the Pacific Regional Environmental Program (“SPREP”), African Group of Negotiators (“AGN”). Combined, the Party submissions represent approximately 120 of the 197 UNFCCC States Parties and, of the 146 coastal and archipelagic states worldwide. The vast majority of submitting Parties are either coastal (e.g. Mexico, Monaco, Gabon) or archipelagic countries (e.g., AOSIS and OPOC/SPREP members) including Parties with extensive marine spaces (archipelagic waters and/or Exclusive Economic Zones and continental shelves) such as Canada, Australia, Chile, Indonesia and Fiji. Many of the Parties providing individual submissions have had a long history of strong ocean management and policy (e.g., Canada, Japan, Chile, Australia, Costa Rica and Indonesia). However, individual input from several major coastal Parties is notably absent (e.g., China, India, Brazil, the Russian Federation, and the USA).

Three UN system entities submitted (Intergovernmental Oceanographic Commission (“IOC-UNESCO”), Division for Ocean Affairs and the Law of the Sea (“DOALOS”), Food and Agriculture Organization (“FAO”)) along with a sole Intergovernmental Organization (International Union for Conservation of Nature (“IUCN”). An additional 23 submissions came from Non-Governmental Organizations (“NGOs”), including academic institutions and both admitted and non-admitted observers. One joint submission represented the scientific networks of DOSI and the Deep Ocean Observing Strategy (“DOOS”). Among the NGO/academic submitters are those with longstanding commitment to ocean and climate policy. Other submitters with established involvement in international environmental and climate policy displayed an increased interest in the ocean-climate interface within the UNFCCC process. There were also submissions by many NGOs with a focus on fisheries, the energy sector, the deep sea, or other interests that are newer to the climate-ocean policy scene.



Fig. 1 The key themes of the Ocean Dialogue submissions.

## Evaluation of the Ocean Dialogue Submissions

We identified key themes of the submissions (Fig. 1) and detailed subtopics within each theme. Each submission was independently reviewed by two people (one natural scientist and one professional with expertise in law or policy) to identify the themes addressed, the number of mentions each theme received, and the context in which each theme is considered. In order to assess stakeholders' concerns with the many aspects of the ocean-climate nexus, the extracted information was averaged and then separated into two categories of submissions: Party Submissions (those by Parties or groups thereof) and Non-Party Submissions (those by UN system organizations and agencies referred as UN system entities, UNFCCC-Admitted NGOs that have observer status to the UNFCCC, and non-admitted NGOs). Key themes and associated subtopics were examined to determine the occurrence percentage of each theme, the number of mentions, and the context in which each theme or topic is mentioned. Select submissions were revisited to provide narrative or anecdotal examples illustrating the treatment of specific themes and topics. We compared Party Submissions with the depth of each Party's focus on the ocean in their respective Nationally Determined Contribution ("NDC") submission. Lastly, we noted and have highlighted what we see as promising recommendations and concrete suggestions for maximizing the utility of the Ocean Dialogue and advancing its goal to strengthen adaptation and mitigation action.

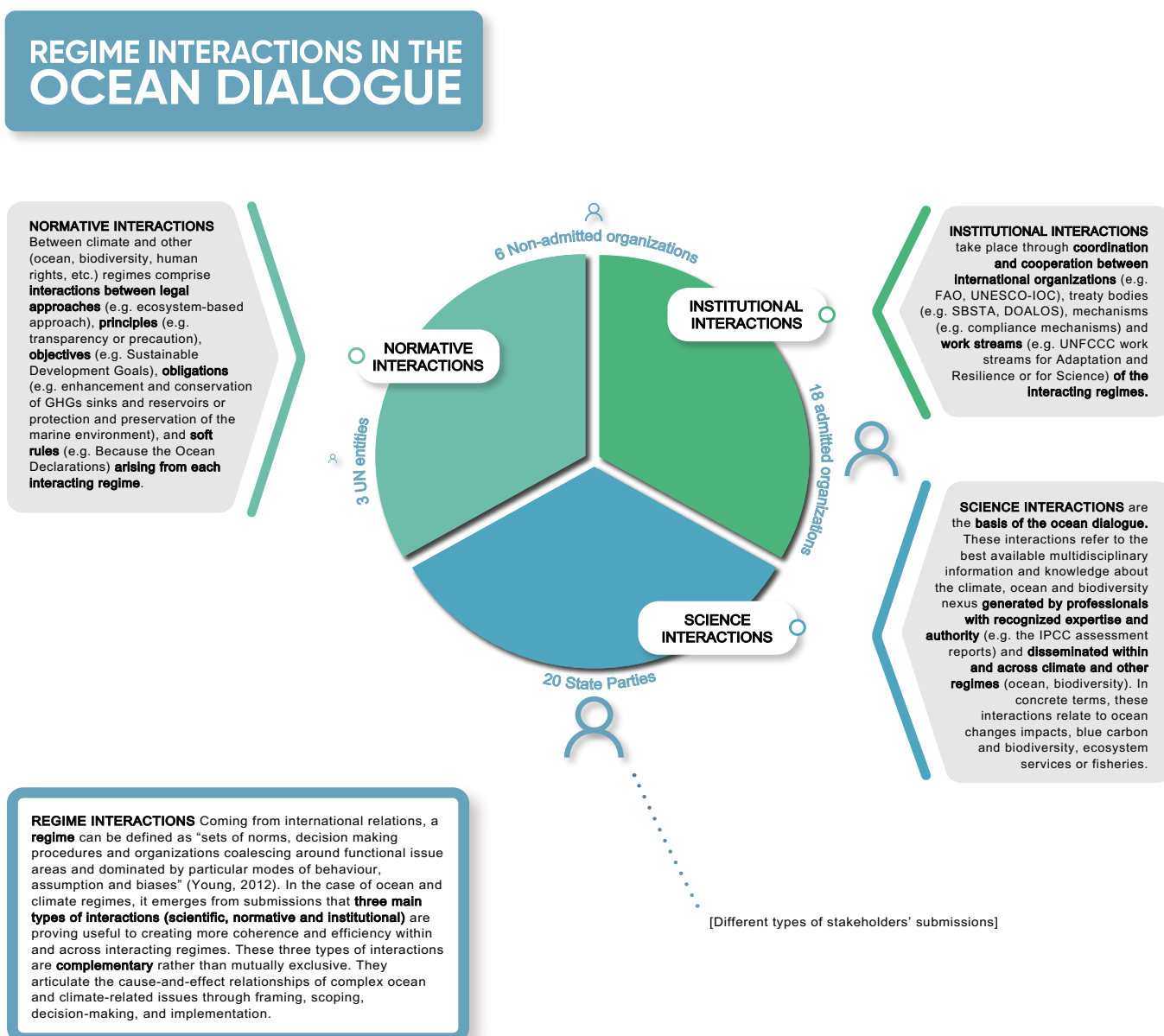


Fig. 2 Three main types of regime interactions (based on Guilloux, 2020) highlighted in the Ocean Dialogue submissions with a figurative representation that does not precisely reflect a specific percentage distribution.

## Overarching Ocean Dialogue Submission Themes

The submissions uniformly acknowledge that ocean and climate are inextricably linked, and that consideration of the ocean and related themes will strengthen the UNFCCC process. Major emerging themes include: Ocean Impacts, Carbon Sinks and Blue Carbon, Biodiversity Management, Ecosystem Services, Normative Interactions, and Institutional Interactions (Fig. 3). Some themes are mentioned more consistently across submissions, while others are mentioned more frequently within submissions (Fig. 4).

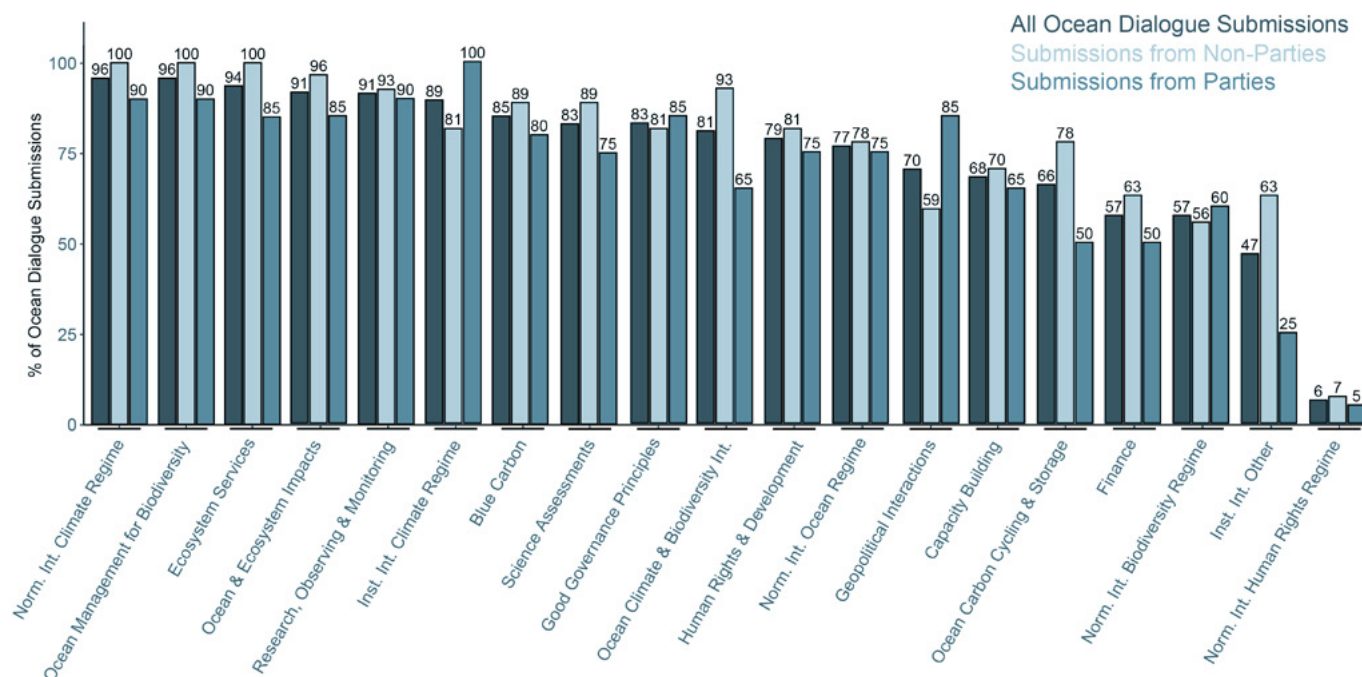


Fig. 3 The percentage of Ocean Dialogue submissions that include key themes is shown in the bar chart. For each key theme (x-axis) the percentage of all submissions, Non-Party, and Party submissions is differentiated by color.

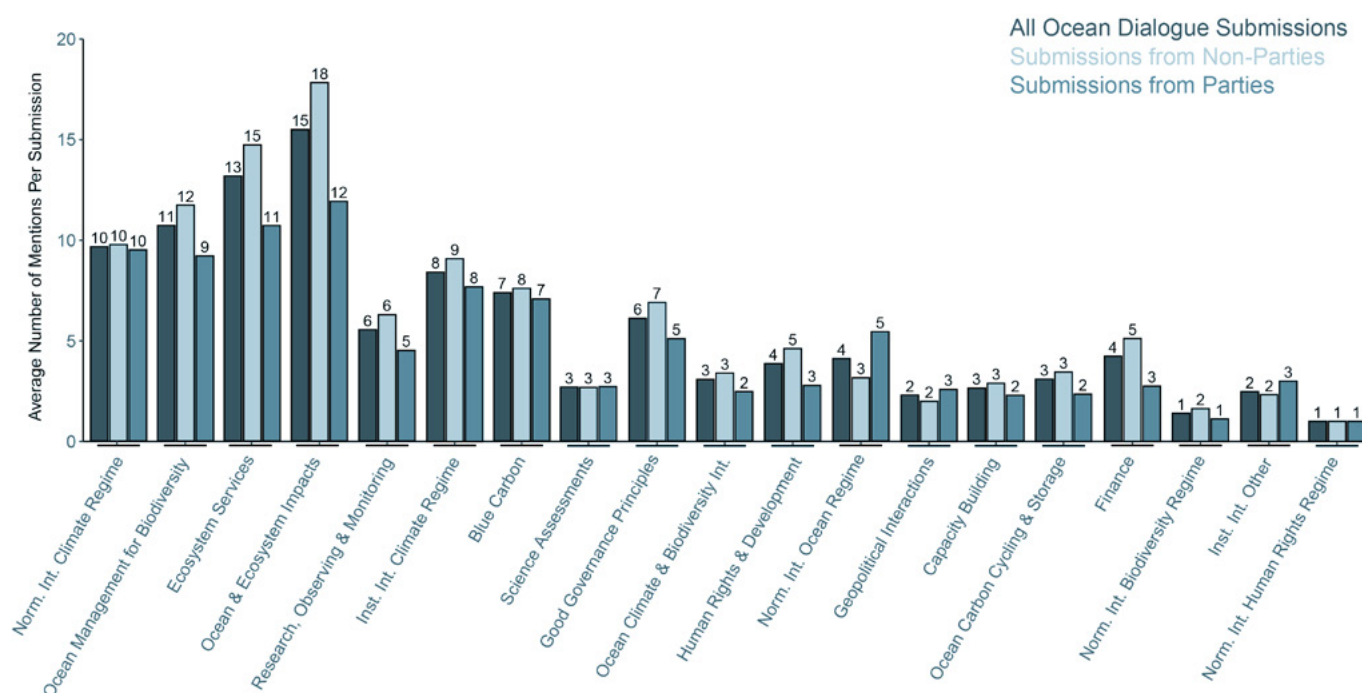


Fig. 4 The number of mentions per submission for each key theme (x-axis) is shown in the bar chart (themes with higher bars represent themes that received more attention per submission). The average number of mentions for all submissions, Non-Party, and Party submissions is differentiated by color.



## **Climate-induced ocean change is broadly acknowledged with warming, ocean acidification, and sea-level rise among the most frequently mentioned impacts**

Impacts to Earth's varied ecosystems are highlighted by many submissions, with a focus on coastal ecosystems (i.e. coral reefs, mangroves) but also some concern for deep-sea impacts. Carbon and heat uptake, warming, acidification, deoxygenation, and extreme events are also discussed in many submissions. The submissions reflect a growing recognition of the ocean's role as a critical greenhouse gas sink and reservoir. Blue carbon and nature-based solutions emerge as common themes, with mangroves and coastal wetlands as prime examples. Seagrass and watershed carbon storage is mentioned, but the carbon storage capacity of the deep sea or other offshore areas receive little mention. Solutions proposed for active decarbonization include the phasing out of offshore oil and gas and decarbonizing the shipping and fishing sectors.

## **A need for increased coordination and coherence in terms of both process and substance is a common submission theme**

Across the board, submitters highlight the need for more interactions among sets of norms, decision-making procedures, and organizations coalescing around distinct functional issue areas such as climate, ocean, biodiversity, or human rights and development, hereinafter defined as "regime interactions" (Fig. 2). The submissions also reflect a broad call for coherence and efficiency in the types of adaptation and mitigation solutions proposed or supported under the Ocean Dialogue. Some of the overarching solutions that submitters feel may benefit from greater coherence and efficiency to be obtained through framing and scoping the Ocean Dialogue, as well as through decision making and implementing relevant international regimes include: ecosystem protection (in particular through ecosystem-based, integrated and resilient management approaches), finance (both innovative financing and "mainstreaming" of conservation or sustainable finance), and capacity-building solutions (focused on knowledge and resource sharing and non-duplication of effort). Submissions also encourage reliance on existing and future science initiatives ("science interactions") to support diplomatic and policy processes and better integration of – or at least coordination and cooperation with – other existing ocean, biodiversity, human rights and development regimes ("normative and institutional interactions").

## **Specific Issues Raised by Ocean Dialogue Submissions**

### **Marine biodiversity and ecosystem services are tightly linked to climate change**

Concern with climate-induced biodiversity loss and the need for protection and management of ecosystems is widespread, with a focus on the varied services that emerge from healthy ecosystems. From aquaculture and fisheries to tourism, coastal protection and maritime transport, there is a consensus that biodiversity maintenance and ecosystem resilience underpins the blue economy. Nature-based solutions including blue carbon (the restoration of mangroves, marshes and seagrass for carbon sequestration) are highlighted as critical solutions, in part for their adaptive benefits.

### **Call to Recognize Interconnectedness of the Biophysical World**

Submissions focus on the interconnectedness of ecosystems and the importance of ecosystem resilience. Fisheries are mentioned as a cross-cutting issue as an ecosystem service supporting human livelihoods and food security, with coordination and cooperation between the FAO, Regional Fisheries Management Organizations, and the UNFCCC among others needed. A focus on ocean renewable energy and land-based renewable energy, which may have unintended consequences such as deep seabed mining for critical minerals, is another example of a recognized need for connectivity.

### **Call for Specific and General Technical Solutions**

Distinct solutions for capacity building are called for or proposed, in addition to general calls for international observation, monitoring and research that focuses on understudied areas and supports the work of developing nations. Capacity building is tied to financing, and there is much mention of "innovative financing" including debt for nature swaps and sovereign blue bonds. Submissions also call for the mainstreaming of sustainable finance via impact finance, blended finance and other ways to "de-risk" investments. Tying back to blue carbon, various submissions call for the standardization of carbon pricing as a prerequisite to such mainstreaming.

Submitters propose science initiatives to support diplomatic or policy processes across regimes. The heaviest focus is given to the IPCC produced assessments (e.g., Special Report on Ocean and Cryosphere in a Changing Climate), but there is a broad call for a science-based approach to the Ocean Dialogue, including for multidisciplinary science presentations to be a key part of the programming.

## Call to reflect ocean and climate interconnectivity through stronger normative and institutional interactions

Strengthened normative and institutional interactions between climate, ocean and other regimes (biodiversity, human rights) are needed to better reflect the interconnectedness between ocean and climate socio-economic and ecological systems (e.g. ecosystem impacts and services) and encourage greater coherence and efficiency in climate and environmental action. Many submitters note the promise, but also navigational peril, of the multitude of international institutional and political processes (dialogues, programmes, partnerships, conferences and mechanisms), as well as legal sectoral, regional and global frameworks (Conventions, Protocols, Agreements) that cover ocean and climate related issues.

Many submissions focus on making the ocean, climate, and encouragingly biodiversity regimes post-2020 interact more efficiently and coherently, through decision-making and implementation. There is broad recognition of the need to better coordinate and cooperate across institutional and political processes of the various legal frameworks, and frequent mention of both the Convention for Biological Diversity and the UNFCCC Standing Committee on Finance, each of which have one or more related sessions upcoming. However, many submitters also note that the sheer volume of parallel processes can overwhelm stakeholders, who may not always see a clearly identified normative and institutional path by which to follow up on key ocean and climate cross-cutting issues.

### Surprising Omissions

The authors also note surprising omissions in the Ocean Dialogue submissions. Despite the broad focus on fisheries, many Parties for whom fisheries are extremely valuable either decline to address fisheries in connection with climate change in their submissions or afford fisheries only a superficial mention. The World Ocean Assessment receives remarkably little mention, despite the fact that it was created as a scientific and technical resource to propel policy makers towards concrete action. Marine genetic diversity does not appear to be on submitters' radars in a climate change context, although it is impacted by climate change and can provide adaptation solutions. The deep sea and marine areas beyond national jurisdiction received only limited mention. Submitters tend to focus on ocean and climate issues occurring within the jurisdiction of States Parties and not necessarily on international areas or activities, such as shipping or mining, which are managed separately.

### Correlation to NDC Marine Focus Factor

We found no clear coherence between how much focus a Party gave to the ocean in its original NDC submission ("Marine Focus Factor" as identified in Gallo et al. 2017) and the likelihood that that a Party submitted comments to the Ocean Dialogue. Both NDCs and the Ocean Dialogue rely on 'submissions' but these do not have the same legal force, object and purpose, or level of participation. Interestingly, there is a subgroup of States Parties whose NDC submissions did not discuss marine or ocean issues, but which submitted robust Ocean Dialogue recommendations (e.g., the EU, New Zealand, Norway, Federated States of Micronesia). This positive change in positioning can be attributed to many factors, including the distinctive purposes, as well as political and legal implications, of NDCs and the Ocean Dialogue and differing views on incorporating adaptation in the former. Further, the June 2017 UN Oceans Conference, the 2019 UNFCCC Blue COP 25 and its many ocean related side-events, and the upcoming Climate Dialogues have clearly succeeded in raising the profile of the ocean in international climate conversation. A final factor that merits recognition is the education of policy makers by ocean and climate scientists and political and legal experts. They have individually and collectively used their competence and dynamism to inform and share experiences with representatives of States Parties and regional organizations that have emerged as ocean climate leaders.

### Key Recommendations and Potential Paths Forward

Many submitters recommend direct action items or procedural paths forward to achieve further integration of ocean-related issues into the UNFCCC process, strengthening that process as well as coordination and cooperation with other regimes. The authors believe that many of these recommendations can and should be acted on in parallel with one another, and that synergistic action is not a zero-sum game, but can flourish exponentially along with awareness, engagement, capacity building, finance and stakeholders' commitment to mitigating and adapting to climate change impacts on and through the ocean. That said, specific actions and solutions that appear particularly promising include:

- The Ocean Dialogue should provide guidance on legal and institutional questions relevant for dealing with ocean and climate related issues within and beyond the UNFCCC with the following:
  - Brief presentations from representatives or experts on ocean, biodiversity and other relevant international regimes such as the Convention for Biological Diversity, the Intergovernmental Conference on Marine Biodiversity in Areas Beyond National Jurisdiction, or the Standing Committee on Finance.
  - Such presentations should include practical information on the mechanics and the landscape of each parallel regime and how to get involved, as well as a “focal point” to field such questions after the Ocean Dialogue concludes.
- The Ocean Dialogue should highlight multidisciplinary and multi-region scientific assessments and, related resources geared toward helping policy makers parse through evolving ocean and climate science materials.
  - A presentation on how to use the existing scientific assessments from IPCC, IPBES and the UN regular process, including the World Ocean Assessment, would be key to inform policy makers on the ocean-climate nexus.
- Open lines of communication should be encouraged between stakeholders worldwide via, for example, a networking database and regular informal voluntary meetings.
- Diversity, equity and transparency should be fostered throughout the Ocean Dialogue.
- The Ocean Dialogue should be a continuing process, not a one-time event.
  - To that aim, Parties may seek a separate ocean-related UNFCCC agenda item at COP 26 next year in Glasgow.

## ABOUT DOSI

The Deep-Ocean Stewardship Initiative seeks to integrate science, technology, policy, law and economics to advise on ecosystem-based management of resource use in the deep ocean and strategies to maintain the integrity of deep-ocean ecosystems within and beyond national jurisdiction. The DOSI Climate Working Group is committed to bringing the whole ocean into climate policy discussions. See [dosi-project.org](https://dosi-project.org).

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