Comments from Public Consultation on ECV Requirements 13/01 – 13/03 2020 for:

# Ocean nitrous oxide

## ECV Product: Hard coral cover and composition

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | Hard coral cover and composition | | | | |
| **Definition** | Amount of N₂O produced per area per year | | | | |
| **Unit** | μmol m⁻² yr⁻¹ | | | | |
| **Note** |  | | | | |
| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | <2000  Coastal:  <500 |  |
| B |  |  |
| T | 2000 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** |  |  | G | Seasonal  Coastal: weekly to monthly |  |
| B |  |  |
| T | Decadal |  |
| **Timeliness** | years |  | G | 1 |  |
| B |  |  |
| T | 2 |  |
| **Required Measurement Uncertainty** |  |  | G | <1 |  |
| B |  |  |
| T | 5 |  |
| **Stability** | % |  | G |  |  |
| B |  |  |
| T |  |  |
| **Standards and References** | Values based on the characteristic scales of the phenomena which are observed using N₂O measurements. For details see the Nitrous Oxide EOV Specification Sheet ([www.goosocean.org/eov](http://www.goosocean.org/eov)), publications from SCOR WG 143 (<https://scor-int.org/group/143/>) and the GOOS Report No. 225 ([www.goosocean.org/atlantos-bgc-targets-report](http://www.goosocean.org/atlantos-bgc-targets-report)). | | | | |
| **Adaptation and Extremes** | | | | | |
|  | Relevant? (Yes/No) | Sugg. Req. sufficient? (Yes/No) | Explanation | | |
| **Adaptation[2]** |  |  |  | | |
| **Extremes[3]** |  |  |  | | |

[1]Goal (G); Breakthrough (B)(not mandatory, more as one possible); Threshold (T), for definitions see [Guidelines](http://tiny.cc/ecv-review)

[2] Is the ECV Product directly relevant to support Climate Adaptation?

[3] Can the ECV Product be used to monitor climate extremes or aspects of extremes?

NO COMMENT

## ECV Product: Hard coral cover and composition

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | Hard coral cover and composition | | | | |
| **Definition** | Concentration of N₂O gas in the water column | | | | |
| **Unit** | nmol kg⁻¹ | | | | |
| **Note** | Nitrous oxide Nitrous oxide (N2O) is an atmospheric trace gas which is measured in the water column of all major ocean basins at concentrations spanning three orders of magnitude. The ocean is a major source (around 25%) of N2O gas to the atmosphere. | | | | |
| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | <2000  Coastal:  <500 |  |
| B |  |  |
| T | 2000 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** |  |  | G | Seasonal |  |
| B |  |  |
| T | Seasonal  Coastal: weekly to monthly |  |
| **Timeliness** | years |  | G | 1 |  |
| B |  |  |
| T | 2 |  |
| **Required Measurement Uncertainty** | % |  | G | <1 |  |
| B |  |  |
| T | 5 |  |
| **Stability** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Standards and References** | Values based on the characteristic scales of the phenomena which are observed using N₂O measurements. For details see the Nitrous Oxide EOV Specification Sheet ([www.goosocean.org/eov](http://www.goosocean.org/eov)), publications from SCOR WG 143 (<https://scor-int.org/group/143/>) and the GOOS Report No. 225 ([www.goosocean.org/atlantos-bgc-targets-report](http://www.goosocean.org/atlantos-bgc-targets-report)). | | | | |
| **Adaptation and Extremes** | | | | | |
|  | Relevant? (Yes/No) | Sugg. Req. sufficient? (Yes/No) | Explanation | | |
| **Adaptation[2]** |  |  |  | | |
| **Extremes[3]** |  |  |  | | |

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