

## ANNEX 2

# Report on ToR 2: Coral related target text development

*Please note that the comments provided in the consultations that inform this document were made informally as part of the ad hoc committee working process. Neither the comments provided or the information presented in this report represent any statement of policy or position nor do they prejudice future negotiation positions.*

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## 1. Introduction

The second terms of reference for this ad hoc committee was to “develop a draft recommendation for a coral reef target and an appropriate alternative that aligns with and builds on other relevant processes”.

This document reports on the current state of development of such a coral related target within the context of the CBD Post-2020 process to develop a global biodiversity framework. It sets out:

- The state of play - where we are in the discussion, and development of a coral related target;
- Proposal of guidelines to set the frame of how coral reefs (and related ecosystems) could be incorporated into the GBF;
- Options for coral related

There has been an active discussion to explore and build on initial proposals for a coral reef related target, with a high level of engagement of ad hoc committee members, and other interested ICRI members. Comments have been received from the following ad hoc committee members: Monaco, France, Indonesia, Japan, US, UK, UN Environment, Cordio, WCS, WWF, ICRS, SPREP. In addition comments were received from Belize and Colombia.

## 2. State of play

The discussions within the *ad hoc* committee are set in a context of high uncertainty as to what it is that the post-2020 framework will look like. The CBD Post-2020 process is Party led, although highly participatory with the focus of 2019 being on consultation with as many actors as possible. First sight of the structure of the Post-2020 framework will be shared as a zero draft by the Co-Chairs on the 13 January 2020.

The ad hoc committee have followed and been guided by the Post-2020 discussions. It is necessary to remain flexible and responsive to the evolving process in order to best support and inform the discussions on future targets, the importance of coral reefs and how this could be taken up in the context of the CBD.

Given that there is still no agreed structure for the Post-2020 Global Biodiversity Framework the ad hoc committee felt it was premature to recommend a text for a coral reef related target. However, the ad hoc Committee have:

1. **A proposed text for the justification/ narrative for a coral reef related target** based on recent scientific evidence and with links to other important global frameworks and policy areas, including sustainable development and climate change; (see Section 3)
2. **a proposal of a framework/ guidelines within which discussions around a coral related target can progress. (see Section 4)** The idea is that such advice could provide focus to future negotiations within the post-2020 process. The substance of these guidelines is under discussion, with some consensus emerging, but helps to provide some framing to the questions such as:
  - a. What should the scope of such a target be?
  - b. Where could a coral related target fit into the post-2020 GBF;
3. **What should the objective and scope of such a target be? (section 5)**
4. **options for possible language for expressing a coral related target (see section 6)**, with a number of options under active discussion. The discussion to date is helping to answer the question: What such a (sub) target could look like;
5. **How SMART are the proposals? (see section 7)** What tools are available to measure progress against such a target? How sufficient are these and what is already in the pipeline to fill these gaps.

There are a number of outstanding questions that will need further discussion, as well as a need to remain responsive to the decision by Parties on how the Framework will be structured.

## 3. Narrative: Coral Reefs and the Post-2020 Global Biodiversity Framework

**Significance of coral reefs:** Retaining and improving the health and function of coral reefs is an important key to realizing the Sustainable Development Goals of Agenda 2030. Shallow, warm water coral reefs occur in the waters of more than 100 countries with 85% of these reefs under the jurisdiction of just 25 states and underpin the wellbeing, food and economic security of hundreds of millions of people.

**Coral reefs and links to the SDGs<sup>1</sup>:** Coral reefs {G14}, their health described by measures of coral and fish diversity and abundance, provide key services and benefits to people. These services directly support 10s of millions of jobs in multiple economic sectors {G8} in coastal and distant states, protect and harbor communities and cities {G11} across tropical coastlines, sustain use of living and non-living resources{G12}, provide transport infrastructure and valuable natural products {G9}, and in future may provide energy solutions {G7}. Through these multiple benefits, coral reefs contribute to reducing hunger {G2} and poverty {G1}, thus improving health {G3}, and potentially strengthening gender {G5} and social equality {G10}. However, access and use result in pressures that may drive decline in coral reef health. Broader land and seascape factors also affect reef health, including land-use change {G15} and altered freshwater flows {G6},

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<sup>1</sup> Drawn from work by David Obura – Obura, DO. 2019. A plot for sustainability – the Sustainable Development Goals as a narrative. PLOS ONE PrePrints xxxx.

as well as climate change {G13}. Managing this complex system requires appropriate awareness and knowledge {G4}, governance mechanisms {G16} and investments by stakeholders {G17}.

**Status and trends of coral reefs:** All recent global assessments show coral reefs to be on a catastrophic trajectory<sup>23456789</sup>. Almost 50% of living coral has been lost since 1870 and these losses are accelerating<sup>10</sup>. In the light of predicted global population growth<sup>11</sup> and global climate change scenarios<sup>12</sup> the direct and indirect pressures on coral reef will continue to increase over the next 30 years up to 2050 and beyond.

**What can we learn from the 2011-2020 Strategic Plan for Biodiversity:** Aichi Biodiversity Target 10 stated that, *“By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.”* Whilst it succeeded in drawing attention to coral reefs, and stimulated increased activity and funding for marine conservation, Aichi Target 10 is not appropriate to carry forward in its current form. The implementation of AT10 was among the worst of the Aichi targets. Since 2010 pressures on coral reefs have increased and the state of the ecosystem declined. Poor implementation has been attributed to vague, complex, ambiguous wording without clear ambition<sup>13</sup> and challenges in addressing the multi-sectoral pressures. The timeline was unrealistic and supporting guidance and tools such as indicators were late; the required monitoring and data not available making it impossible to measure progress<sup>14</sup>.

**Overcoming the Implementation gap:** There is a lot of existing policy with more than 230 international policy instruments that relate to coral reefs, 73 binding instruments at the global and regional scale, and 591 commitments<sup>15</sup>. These tools have not however been able to have sufficient depth to reverse the decline of coral reef ecosystems. If society is to continue to benefit from coral reefs substantially, we urgently need to work out how to better implement policy coherently, as committed to by States through UNEA Resolution UNEP/EA.4/13<sup>16</sup>.

**Opportunities for including coral reefs in the post-2020 biodiversity framework - what is different this time?** It has been shown that proactive policies to protect and restore the health of the world’s coral reefs have the potential to generate substantial economic gain, provide important societal benefits, including to local communities, and help deliver the UN Sustainable Development Goals<sup>17</sup>.

There is an active, engaged community of countries, organisations and experts that are already convened on the issue of coral reef conservation and protection, in particular through the International Coral Reef

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<sup>2</sup> ISRS 2018 Consensus Statement:

[https://www.icriforum.org/sites/default/files/2018%20ISRS%20Consensus%20Statement%20on%20Coral%20Bleaching%20Climate%20Change%20final\\_0.pdf](https://www.icriforum.org/sites/default/files/2018%20ISRS%20Consensus%20Statement%20on%20Coral%20Bleaching%20Climate%20Change%20final_0.pdf)

<sup>3</sup> FAO (2019) State of the world’s biodiversity for food and agriculture <http://www.fao.org/3/CA3129EN/ca3129en.pdf>

<sup>4</sup> OECD (2019) Biodiversity: Finance and the Economic and business case for action <http://www.oecd.org/environment/resources/biodiversity/G7-report-Biodiversity-Finance-and-the-Economic-and-Business-Case-for-Action.pdf>

<sup>5</sup> IPBES Global Assessment 2019 <https://www.ipbes.net/news/Media-Release-Global-Assessment>

<sup>6</sup> Living Planet Report (2018) <https://www.worldwildlife.org/pages/living-planet-report-2018>

<sup>7</sup> IPCC 2018 - <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>

<sup>8</sup> GEO6 (2019) <https://www.unenvironment.org/resources/global-environment-outlook-6>

<sup>9</sup> IPCC Special Report on Oceans and Cryosphere, 2019 <https://www.ipcc.ch/srocc/home/>

<sup>10</sup> IPBES Global Assessment 2019

<sup>11</sup> UN (2017). <https://population.un.org/wpp/>

<sup>12</sup> IPCC 2018

<sup>13</sup> Timpte, Marquard & Paulsch, (2018); Butchart et al., 2016; Hagerman and Pelai, 2016

<sup>14</sup> [https://www.icriforum.org/sites/default/files/ICRI\\_AT10Review-Final\\_Jan22.pdf](https://www.icriforum.org/sites/default/files/ICRI_AT10Review-Final_Jan22.pdf)

<sup>15</sup> UNEP/EA.4/23 and UNEP/EA.4/INF/6 for the full analysis

<sup>16</sup> UNEA Resolution UNEP/EA.4/13 on “Sustainable coral reefs management”

<sup>17</sup> UN Environment, ISU, ICRI and Trucost 2018. The Coral Reef Economy: The business case for investment in the protection, preservation and enhancement of coral reef health. 36pp [https://www.icriforum.org/sites/default/files/The%20Coral%20Reef%20Economy\\_0.pdf](https://www.icriforum.org/sites/default/files/The%20Coral%20Reef%20Economy_0.pdf)

Initiative (ICRI)<sup>18</sup> and its associated Networks, including the Global Coral Reef Monitoring Network (GCRMN) as well as regional and national initiatives. Since 2010 there have been substantial developments in terms of technology and knowledge development that provide the opportunity to develop a target for coral reefs that is measurable, with an ambitious but realistic timeframe, that has a holistic view of coral reefs within the broader marine system relevant to the broader sustainable development agenda, with clear cross-reference to other global and regional policy instruments and commitments relevant to coral reefs.

## 4. A framework for discussing target development

The idea of the guidelines proposed here is proposed as a way to establish a common basis or coherence on the major elements and provide a frame for the negotiation of different view-points to reach a common end.

State of development: there has been an initial round of discussion on the proposed elements to be included in such a framework – these are presented below with some expansion and any on going discussion points.

### **1. Coral reefs should be explicitly included within the post-2020 Global Biodiversity Framework – but where?**

There is a strong narrative for the inclusion of coral reefs and scientific consensus that coral reefs are at risk of ecosystem collapse. There is a good potential for highlighting coral reefs as a signature example ecosystem - the canary in the coal mine - a sign of major global change. The Post-2020 framework can provide an opportunity for action where success in addressing the decline in coral reefs could have broader implications for the conservation, sustainable use and the benefits derived by societies directly and indirectly depending on tropical coastal regions.

There remains a question as to how coral reefs could be taken up within the Framework, whether this through a specific coral reef target, where coral reefs are considered with other important ecosystems, or whether there is an overarching target for important marine and coastal ecosystems with a specific coral reef sub target. One proposal is that coral reef ecosystems could be a signature example for a generic ecosystem target, a model for a headline ecosystem target and how climate change should be referenced and connections made to Agenda 2030. *There was a lot of support during the Montreal consultation for the idea of an overarching marine and coastal important ecosystem target with associated subtargets and indicators, including for coral reefs.*

It is noted that the structure of the post-2020 framework is not yet set and it will be necessary to continue to follow the process carefully;

A target needs to support and be supported by a number of other targets within the CBD process (related to fisheries, area based protection, pollution, species and genetic diversity – AT6, 8, 11, 12, 13); This would highlight key pressures and the need for integrated landscape-seascape approaches. *During the Montreal consultation it seemed very possible there would be opportunities to include coral related indicators within these other target areas.*

### **2. The target should reflect all three of the CBD goals: conservation, sustainable use and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources**

This was a message that came out of the OEWG 1 discussions strongly and in part as a reaction to the perceived bias of the Aichi targets towards conservation. This is a part of the approach for developing the structure. It may not be necessary to explicitly reference all three in the text of a target, but it should be clear how the target relates to supporting all objectives.

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<sup>18</sup> [www.icriforum.org](http://www.icriforum.org)

### **3. The target should be articulated within the context of climate change and so as to reflect climate realities**

In setting a target, it is necessary to balance ambition with reality. A target should help Parties in triggering urgent, measurable actions that address coral reef decline and the impacts on society. It is not helpful to set targets that ignore climate realities. If climate change/ Paris Agreement is not dealt with explicitly then targets will not be met. Coral reefs will continue to decline between 2020-2030 and even to 2050 due to the unavoidable impacts of latent climate change drivers and low definition in scenarios until after 2050. As climate change impacts to coral reefs will become more intense and difficult to manage through management of local pressures. Need to be able to express the concept of resilience in the context of changing climatic conditions.

Whilst there is consensus that it the need to act is urgent and ambition must be high, there are different views in the ad hoc committee in where the balance lies in trying to expressing ambition and reality.

### **4. The target should be clearly mapped out against the SDGs**

It is essential to be able to make clear linkages to the narrative of Agenda 2030 and the Sustainable Development Goals. This was a clear request by Parties at OEWG-1. It is important to clearly articulate the role of coral reefs in supporting nature, economy and society – this also plays an important role in helping highlight the significance of coral reefs for other sectors (mainstreaming) – vital actors for enabling success in delivery of any target. There is a potential to again use coral reef ecosystems as an example of how the broader Global Biodiversity Framework can be mapped out against the ambitions of Agenda 2030. An articulation of how this could look has been proposed<sup>19</sup>

### **5. The target should learn from the experience of implementing the Aichi Targets including Aichi Biodiversity Target 10**

The ad hoc committee felt that it was especially important to learn from AT10 – not explicitly in the text but in the rationale. As with AT10, climate should be explicitly addressed, as do the drivers of decline – by the organisations competent to do so. The timescale should be ambitious but not unrealistic. The target should be written in a way that is understandable and possible to measure. The ICRI Review<sup>20</sup> of AT10 provides a reflection of formal assessments of progress against the target and also experiences of some coral reef countries. Importantly a number of Parties already have on going activities relating to AT10 that are not completed – a future target should support and help build on these existing initiatives, not undermine them.

### **6. The timescale will be articulated in a way that is consistent with the approach proposed at OEWG 1 (target for 2030, but in the context of the 2050 vision) (discussion)**

In terms of timescale, Parties have expressed a clear desire to set a path to achieve the CBD 2050 vision, looking at setting a longer-term trajectory to give direction to decadal strategies with a target milestone in 2030. The ad hoc committee has expressed that is helpful to view discussions around a coral related target within this longer perspective - although making sure that looking ahead does not mean postponing urgently needed action. Uncertainty remains as to how the Global Biodiversity Framework will come together and will need to re-examine this once the structure is clearer.

There has been discussion about the balance between ambition and realism. Action is urgent. Setting unrealistic timeframes however (such as the 2015 AT10 deadline), results in failure and does not bring about the required change. To be realistic, and over the years gain the trust and commitment of Parties and other actors through being right, it MUST accommodate ecosystem and species declines to 2030 and even beyond to 2050. This may be unpopular and hard to message but it is assured, based on current science.

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<sup>19</sup> Obura, DO. 2019. A plot for sustainability – the Sustainable Development Goals as a narrative. PLOS ONE PrePrints xxxx.

<sup>20</sup> [https://www.icriforum.org/sites/default/files/ICRI\\_AT10Review-Final\\_Jan22.pdf](https://www.icriforum.org/sites/default/files/ICRI_AT10Review-Final_Jan22.pdf).

The DPSIR model is helpful to set the sequence of actions along this timeframe- it is first necessary to address the drivers and pressures before the state/ impacts can be brought under control. .

#### **7. The target will consider the use of “reference models” rather than historic baselines (discussion)**

There continue to be different views on this question – however the concept is retained to help prepare for possible discussions during the Post-2020 process. On one hand there are concerns about the use of baselines from conceptual perspective (use of a historic time point to measure against a changing future) and also a practical perspective (many respondents citing difficulties in defining the baselines or not having the data to create them). An alternative concept of reference models has been proposed to help provide a way forward for ‘managing for change’ and dealing with climate realities. Current levels of systems change will mean that selecting a baseline will become arbitrary.

There are however still questions about how reference models work, how models are chosen, what the data requirements are and how feasible it would be to transfer to this approach. Concern was also expressed that the use of models could move ambition away from the concept of restoring degraded habitats to a historic baseline, which is still applicable for other habitats.

#### **8. The text of the target will not identify the specific metrics but describe what is being measured (discussion)**

It is necessary that the target is as SMART as possible, recognizing that specific metrics allow for better reporting and assessment of progress against the target. The question is where and how this specificity needs to be articulated. In the actual text of the target? Or in the elaboration of that target in the description of indicators? Live coral cover and reef fish biomass are two metrics that are in current use, however by naming specific metrics in the text of a target could then exclude the possibility up new/additional metrics that may become available for use following adoption. A suggestion has been to reflect in the target text what it is that these two metrics are being used to demonstrate (e.g. reef health and resilience), then leaving the scope for specificity – and demonstration of being SMART to be set out in the supporting documentation.

## **5. Views on the scope and objective of a target**

Further reflection is needed on how to cope with the proposals for including additional elements including: associated ecosystems, other vulnerable ecosystems, direct pressures, restoration, resilience.

### **5.1. Objective of a target – what should be achieved?**

‘Good ecological function’ of coral reef ecosystems to maintain ecological processes and ecosystem function.

This could be achieved through different types of intervention depending on the current state of the reef and the resources available: conservation, protection, recovery or appropriate restoration

In setting the objective of the target it would be important to use existing evidence ensure that the target is achievable.

*Restoration* was identified as an action that should be part of a broader management initiative, where the dominant pressures have been addressed and where natural recovery is slow, or not apparent.

### **5.2. Geographic scope: global – all coral reefs.**

There were a number of voices arguing against a target that focused on the ‘most resilient’ as this is not easy to determine and may place an unfair burden on specific countries.

Another perspective was to focus on ‘healthy’ coral reefs – which was felt to be something that can be determined.

There are however many reefs that are in an impacted state that are incredibly important for supporting coastal communities.

The predominant view in the ad hoc committee is to focus on managing all reef areas where they are depended upon. There is value in managing reef areas towards sustainable function and potential future recovery, as well as protecting healthy / resilient reefs – but there should not be a focus on resilient reefs at the expense of ignoring all other reef areas.

### 5.3. Thematic scope: discussion

#### *All coral reefs vs warm water coral reefs:*

The dominant view was that a target should focus on warm water coral reefs. Concern was expressed that ‘all coral reefs’ would lead to the inclusion of reefs (e.g. deep and cold water coral reefs) where there are different pressures, and where there is less knowledge, monitoring, data).

There are however countries that only have cold water coral reefs. The text of AT10 allowed for the freedom for Parties to report on the status as relates to both cold and warm water coral reef ecosystems, and there is some desire to retain this flexibility in a new target. One suggestion was that cold-water coral reefs could be part of a wider cold-water biodiversity grouping.

#### *Inclusion of “associated ecosystems” (sea-grass, mangrove)*

The ad hoc committee agree that associated ecosystems are important and relevant with some support for their explicit inclusion in the wording of a target, recognizing the interdependence of these systems and broadening the management approach. However there are also reflections that their inclusion creates complication and ambiguity in trying to put too much into one target. Their inclusion could also make it more difficult to articulate a measurable target.

#### *Inclusion of “vulnerable marine ecosystems” left open to national interpretation*

There were different views. For some it was felt that this was too broad and it was better to retain focus on (warm water) coral reefs. It was felt this required defining further as in AT10, vulnerable to climate change and anthropogenic pressure. Another view was that rather than coral reefs and VMEs, coral reefs could be considered within a VME target.

It is noted that there are concrete definitions of what is covered by VME, E.g. EU which does not include warm water coral reefs: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R2336&rid=4>; FAO have also collated RFMO definitions <http://www.fao.org/in-action/vulnerable-marine-ecosystems/background/en/>

Current Proposals include:

- setting separate targets (or sub targets) for coral reefs, seagrasses and mangroves.
- to articulate a warm water coral reefs as an example for a generic ecosystem target – which would then also be applicable to cold water coral reefs, and also associated ecosystems.
- For a coral sub target to sit within a more general VME target.

## 6. Options for expressing a coral reef related target

There has been some progression on the development of ideas for expressing a target. How the thinking evolves further has much to do with the structure that will be used for the Post-2020 Global Biodiversity Framework and the scope within that for a coral reef related target or subtarget.

## 6.1. Batch 1: An outcome based target for 2030

### 6.1.1. Proposal from the ad hoc committee building on the original suggestion of WCS

By 2030, Parties have established and are implementing plans<sup>21</sup> to maintain the current [and/or future]<sup>22</sup> function and integrity of [coral reefs and associated ecosystems][ecosystems]<sup>23</sup> demonstrated by key metrics of ecosystem health and resilience<sup>24</sup>, against appropriate reference models<sup>25</sup>

### 6.1.2. Add to the amended WCS text proposal a measurable target using for example:

- X ha or X% of coral reef are under specific management measures
- X ha or X% of coral reef are protected under MPAs or OECMs
- X sites/ X% show/demonstrate increase or maintained coral cover against baseline

### 6.1.3. 2<sup>nd</sup> round proposal from WCS based on comments received (see 2 page note at addendum 1 – which also includes information on proposed indicators)

By 2030, Parties are implementing strategic actions, at multiple scales, to maintain the integrity and function of the planet's coral reefs using key metrics of reef health, such as maintaining or increasing live hard coral cover, structural complexity and reef fish biomass against appropriate benchmarks.

## 6.2. Batch 2: A vision for coral reefs for 2050, with a 2030 milestone target

Initially proposed by the ad hoc committee following discussions in the sideline of OEWG 1 in Nairobi. Interest has been expressed for finding a combination of a clear outcome target for 2030, supported by a longer-term ambition to achieve a 2050 vision relevant to coral reefs. This is very much in line with the discussions that were held in the OEWG 1. The proposal below draws on the wording above to build in the proposed milestones to 2050, with some rationale.

**By 2030** – (mapped to the SDGs and Agenda 2030):

- full development and implementation of the transformational governance and management systems necessary to achieve sustainability<sup>26</sup>. (CBD Objectives 2 and 3).
- full development of, and implementation at scale, of mitigation hierarchy methods<sup>27</sup> to reduce and where necessary reverse impacts of pressures on nature – avoid-minimize-remediate-offset. (CBD Objectives 2 and 3).

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<sup>21</sup> The focus here must certainly be on governance, and could be expanded/wording altered to reflect this.

<sup>22</sup> Adding in 'future' enables the goal to accommodate a decline that is predicted, so long as the system model shows that this can be reversed and improved in the future, on a longer timeframe consistent with e.g. Paris Agreement and CO2 stabilization.

<sup>23</sup> Proposing an ecosystem target, in which coral reefs are used as the defining example, may be m

<sup>24</sup> This reflects back on the 'current and/or future' clause, and accommodates metrics that will show future/potential recovery even while current and near-future status (e.g. coral cover, fish biomass) show declines in 2030.

<sup>25</sup> 'reference models/points' is suggested rather than 'baselines'. Baselines reflect a history bias – the first/early set of measurements, and the goal is to RETURN to these. However, all is pointing to a 'manage for change' paradigm where we should not use historical baselines as they may be irrelevant in the future, and since we don't have measures the 'original' state, the baseline is arbitrary anyway (shifting baselines). 'Reference models/points' allows for a change model to be used – reflecting our uncertainty as to what a possible end-point might be. Also, a 'model' allows for change/improvements to that model as science and knowledge improve, and can be done in ways that are consistent with/supportive of what was done under the earlier model. 'Points' is a bit static, like 'baselines', so something along the lines of 'model' is better.

<sup>26</sup> As called for in IPBES 2019 and IPCC 2018.

<sup>27</sup> Arlidge WNS et al. 2018. A Global Mitigation Hierarchy for Nature Conservation. *BioScience* 68: 336–347



- Monitoring and assessment that shows the counterfactual evidence of success (ie. less decline). (CBD Objectives 1)

*Possible text:*

[ALT 1:] By 2030, Parties have established and are implementing plans<sup>28</sup> to maintain the current [and/or future]<sup>29</sup> function and integrity of [coral reefs and associated ecosystems][ecosystems]<sup>30</sup> demonstrated by key metrics of ecosystem health and resilience<sup>31</sup>, against appropriate benchmarks

[ALT 2]: By 2030, Parties are implementing strategic actions, at multiple scales, to maintain the integrity and function of the planet's coral reefs using key metrics of reef health, such as maintaining or increasing live hard coral cover, structural complexity and reef fish biomass against appropriate benchmarks.

[ALT 3]: By 2030 Parties have built up adequate capacity and cross-cutting mechanisms at the national level to implement the agreed coral reef programme of work, with support from regional and international bodies]

**By 2040:**

- Through mitigation hierarch applied in all economic and use sectors, direct pressures are all reduced to within sustainability/safe biological limits. CBD Objectives 1, 2, 3.
- no further increase in the threatened status of an ecosystem or species<sup>32</sup>, and demonstrated improvements in key/targeted ones<sup>33</sup>. CBD Objectives 1.
- Direct and effective actions that restore and improve at scale the health of natural systems are fully resourced, to show measurable impact by 2050. CBD Objectives 1, 2, 3.

Possible text: **By 2040:** The direct pressures on coral reefs and associated ecosystems are reduced to safe biological limits on X% of their spatial area.

**By 2050 – living in harmony with nature:**

- Biodiversity is conserved and stable
- Sustainable use is delivered; Benefits are shared equitably

Possible text: **By 2050:** All direct pressures impacting coral reefs have stopped; no further net loss of coral reefs with signs of recovery against appropriate benchmarks.

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<sup>28</sup> The focus here must certainly be on governance, and could be expanded/wording altered to reflect this.

<sup>29</sup> Adding in 'future' enables the goal to accommodate a decline that is predicted, so long as the system model shows that this can be reversed and improved in the future, on a longer timeframe consistent with e.g. Paris Agreement and CO2 stabilization.

<sup>30</sup> Proposing an ecosystem target, in which coral reefs are used as the defining example, may be m

<sup>31</sup> This reflects back on the 'current and/or future' clause, and accommodates metrics that will show future/potential recovery even while current and near-future status (e.g. coral cover, fish biomass) show declines in 2030.

<sup>32</sup> As shown by the IUCN Red List of Threatened Species and Red List of Ecosystems

<sup>33</sup> As shown by the IUCN Green List of Species and Green List of Ecosystems

### 6.3. Batch 3: Additional approaches proposed but not yet examined / discussed

#### 6.3.1. Proposal from WWF:

By 2030, the decline of critical and vulnerable ecosystems and habitats, particularly coral reefs, seagrass and mangrove areas, has been halted by addressing the multiple anthropogenic pressures and when possible through restoration with a view to maintain or strengthen their resilience, integrity and functioning.

#### 6.3.2. Proposal from SPREP:

Suggestion that the target should be measurable as in SDG 14.2.1: “Proportion of national exclusive economic zones managed using ecosystem-based approaches”. Although a challenge may be what qualifies as an ecosystem-based approach.

#### 6.3.3. Proposal from Simon Harding:

By 2030, Parties have established and are implementing plans to maintain the current [and/or future] function and integrity of coral reefs and associated ecosystems demonstrated by key metrics of ecosystem health and resilience, against appropriate reference models.

By 2030 Parties have built up adequate capacity and cross-cutting mechanisms at the national level to implement the agreed coral reef programme of work, with support from regional and international bodies

By 2040: The direct pressures on coral reefs and associated ecosystems are reduced to safe biological limits on X% of their spatial area.

## 7. How SMART are these proposals?

What are the tools available to measure progress – indicators, monitoring, data flows? How sufficient are these and what is already in the pipeline to fill these gaps?

It is clear that there are some tools already available to help measure progress against a coral reef target and suggest that whilst implementation may not be perfect, it should be possible to measure (if it is articulated clearly enough) These tools are not yet sufficient and are patchy.

There are however coordinated groups of people (countries and organisations) that are actively working on addressing these challenges at the national scale, regional scale and global scale. (ICRI, GCRMN, Reef Check, IFRECOR, Regional Seas Programmes and action Plans). There are innovative projects to find new solutions. Likewise, resources are lacking, but there are mechanisms already being developed (e.g. innovative financing, Global Coral Reef Fund) that are

- Need to align with / link to GCRMN/ make use of their outputs

As an example:

Indicators	<ul style="list-style-type: none"> <li>• there are existing indicators - they are not perfect, but they are available for use at the start of the implementation period (coral reefs were the only vulnerable marine ecosystem that was evaluated for AT10)</li> <li>• there is on going work to develop new indicators that could help this work during the implementation period</li> </ul> <p>Examples: Live coral cover is an existing indicator for AT10; Both this and Reef fish biomass are Essential Ocean Variables in current use.</p> <p>Indicators used/ being developed within France: : <a href="#">Percentage of coral reef monitoring stations</a></p>
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	<p><u><i>in French overseas territories with stable or increasing coverage of living coral</i></u>; Percentage of coral reefs included in MPAs – Also developed by the French National Observatory for Biodiversity.</p>
Monitoring	<ul style="list-style-type: none"> <li>• There are methods/ protocols for monitoring.</li> <li>• There are networks existing to coordinate. There are global and regional bodies to help coordinate coral reef monitoring.</li> <li>• Monitoring capacity is patchy in time and space, but this is something that could be addressed</li> </ul> <p>GCRMN – a global mechanism with monitoring protocols, regional coordination; Atlantic Gulf Rapid Reef Assessment monitoring initiative; Reef Check; National monitoring (e.g. IFRECOR – reporting every 5 years on the state of French Coral Reefs).</p> <p>There is also a reporting mechanism for the Meso-American Barrier Reef “Healthy Reef Initiative”.</p>
Baselines	<ul style="list-style-type: none"> <li>• Many countries identified these are lacking.</li> </ul> <p>France - in 2015 64% of coral reef monitoring had stable or increasing coverage of living coral (it is not strictly speaking a baseline, but the closest thing available for France)</p>
Data management/ flows	<ul style="list-style-type: none"> <li>• There are gaps/ challenges with data science, but these are recognised and being addressed.</li> <li>• There are existing activities and efforts being undertaken already at multiple levels - a new target can help focus these, provide a strong direction and / hook to scale up</li> <li>• We understand what baselines are needed. They are not complete, but there are patches that help give a useful picture.</li> </ul> <p>Development of MERMAID – a tool to help with standardising data collection; GCRMN progress to develop of data and metadata standards</p>

ANNEX 1: WCS updated 2 pager

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