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Climat, biodiversité et océans en 2020: construire une ambition commune

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18 Janvier 2020

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Climat, biodiversité et océans en 2020: construire une ambition commune

Le *pourquoi*

I. Construire une ambition commune climat et biodiversité (terrestre et marine) : quelle importance ?

Le *comment*

I. Bref retour ambition climat-biodiversité à la COP25 (la COP « Bleue »)

II. 2020 : Quelle ambition commune pour la « super année » climat-biodiversité ?

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I. Construire une ambition commune climat et biodiversité (terrestre et marine) : Quelle importance ?

Etude IDDRI (novembre 2019) sur l'importance d'une ambition commune climat et biodiversité

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STUDY

N° 08
November
2019

Towards a climate change ambition that (better) integrates biodiversity and land use

Alexandra Deprez, Lola Vallejo, Aleksandar Rankovic (IDDRI)

The climate change and biodiversity loss crises require an ambitious, coordinated response. Addressing them separately—as has largely been the case to date—risks compromising the world's ability to successfully halt climate change while preserving ecosystems and meeting other sustainable development goals. The recent high-level focus on Nature-Based Solutions (NBS) at the UN Climate Summit shows growing awareness that ecosystems conservation is a win-win-win solution for climate adaptation, mitigation and biodiversity. The Paris Agreement's 2050 carbon neutrality goal, and the recent Beijing Call for Biodiversity Conservation and Climate Change also evidence an emerging convergence between the two issues in the international political agenda.

Yet still lacking are open discussions on the specifics of *what* a coordinated ambitious response to climate change and biodiversity loss would actually look like, especially given the severely negative biodiversity impacts of some climate mitigation 'solutions' when deployed at a large scale.

This *Study* argues for the need to integrate biodiversity into ambitious climate action. This requires paying close attention to *how* the 1.5°C goal is reached, as some 1.5°C emission reductions pathways can be compatible with biodiversity protection, while others—namely those relying on widespread carbon-dioxide removal (CDR) deployment, through the use of widespread BECCS or afforestation—are set to severely negatively impact biodiversity. This paper primarily focuses on the climate-biodiversity nexus on land, but its main conclusions could also apply to the ocean.

KEY MESSAGES

The Paris Agreement's carbon neutrality goal requires a greater reliance on carbon sinks, therefore placing ecosystems at the centre of ambitious climate action. Yet despite the useful development of NBS, silos between climate and biodiversity responses remain in science, international governance, and civil society. It is therefore necessary to increase coordination between climate action and biodiversity conservation.

Crossing recent IPCC and IPBES reports and scientific literature reveals synergies and trade-offs between climate change and biodiversity loss responses. Climate ambition should therefore be redefined as limiting temperature rise to 1.5°C through emission reduction pathways that are biodiversity and food security compatible.

Maximising climate and biodiversity synergies and minimising trade-offs requires (1) rapid and deep energy system decarbonisation and AFOLU emissions reduction, (2) significant energy demand reduction, and food system transformation (e.g. food waste reduction, diet shift), (3) optimisation of carbon sequestration in current land use, while conserving biodiversity, and (4) refrain from widespread deployment of land-based mitigation/CDR measures such as BECCS, which require massive land use change and have highly detrimental biodiversity impacts.

To support the integration of ambitious climate change and biodiversity action in national policies, increased coordinated action is needed internationally in science (scientific communities, IPCC and IPBES), international governance (between UNFCCC, CBD and UNCCD), and civil society.

Policy Brief IDDRI (novembre 2019) NDCs Océans

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POLICYBRIEF

N° 2
NOVEMBER
2019

Opportunities for increasing ocean action in climate strategies

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The global ocean is warming, acidifying and losing oxygen, and sea level is rising. As a result, keystone species and ecosystems such as warm-water coral reefs, seagrass meadows and kelp forests will face high to very high risks by the end of this century even under low carbon dioxide (CO_2) emissions (IPCC, 2019). Moreover, low-lying coastal settlements will face moderate to high sea-level rise risks by the end of the century, even under full and timely implementation of the Paris Agreement, unless comprehensive and intense adaptation efforts are undertaken. This calls for a dramatic scaling up of efforts towards ambitious mitigation and adaptation.

The ocean offers opportunities to reduce the causes and consequences of climate change, globally and locally, as shown by *The Ocean Solutions Initiative*[1] (Gattuso *et al.*, 2018) and other recent reports (Hoegh-Guldberg *et al.*, 2019; Because the Ocean 2019[2]). However, countries have poorly used ocean-based measures for tackling climate change and its impacts, in their Nationally Determined Contributions (NDCs; Gallo *et al.* 2017) under the Paris Agreement. The process towards the 5-year revision of NDCs, culminating at the 26th Conference of the Parties of UNFCCC, offers an opportunity for countries to adopt more ocean-inclusive mitigation and adaptation strategies.

In this *Policy Brief* we assess 18 ocean-based measures to support climate policies and the revision of NDCs in the areas of mitigation and adaptation. Ocean-related measures should not be considered as a substitute for climate mitigation on land, which must also be strongly pursued for the benefit of the atmosphere as well as the ocean.

1 http://bit.ly/2xJEEV6.
2 Ocean For Climate. Ocean-Related Measures in Climate Strategies, 2019. https://www.becausetheocean.org/ocean-for-climate/

KEY MESSAGES

The ocean is a key element of our life support system and provides many services. Ocean-based actions can maintain or increase those services despite climate change.

Ocean-related measures cover both mitigation and adaptation, and range across four clusters (Decisive, Low Regret, Unproven, Risky) that offer a policy-relevant framing for decision and action.

Advancing knowledge on ocean-based solutions is timely ahead of COP25 (known as the "Blue COP" because of its ocean focus); COP26, by which Parties are due to revise and enhance the ambition of their NDCs; and the Global Stocktake in 2023.

The next iteration towards more ambitious NDCs should scale up ocean-based climate action by prioritising Decisive (e.g. *Marine renewable energy*) and Low Regret (e.g. *Conservation and Restoration and enhancement of coastal vegetation*) measures, improving knowledge on the Unproven measures, and very cautiously weighing the Risky ones.

Decisive and Low Regret measures are both key priorities for action because (1) the full implementation of Decisive measures will not completely eliminate coastal risks and (2) the effectiveness of Low Regret measures, especially nature-based solutions, depends on the global warming level.

I. Construire une ambition commune climat et biodiversité (terrestre et marine) : quelle importance ?

- La science appelle à de l'action ambitieuse et urgente (rapports du GIEC et de l'IPBES)
- Les réponses aux crises climat et biodiversité sont intimement imbriquées
  - Au premier abord : **nombreuses synergies** entre ambitions climat et biodiversité
    - **L'ambition climatique** (= 1.5°C) → est critique pour protéger la **biodiversité** (terrestre et marine)
    - **L'ambition biodiversité** → est essentielle dans la lutte **climatique**
  - **Mais...** sérieux potentiel de **grandes tensions** entre ambition climat et biodiversité si on regarde de plus près les implications à plus long terme (2050) des solutions déployées dans les trajectoires climatiques compatibles avec 1.5°C
    - Certaines trajectoires climatiques 1.5°C analysées par le GIEC pourraient être très négatives pour la biodiversité

I. Tensions climat-biodiversité : l'impact de CDR/BECCS dans les trajectoires 1.5°C

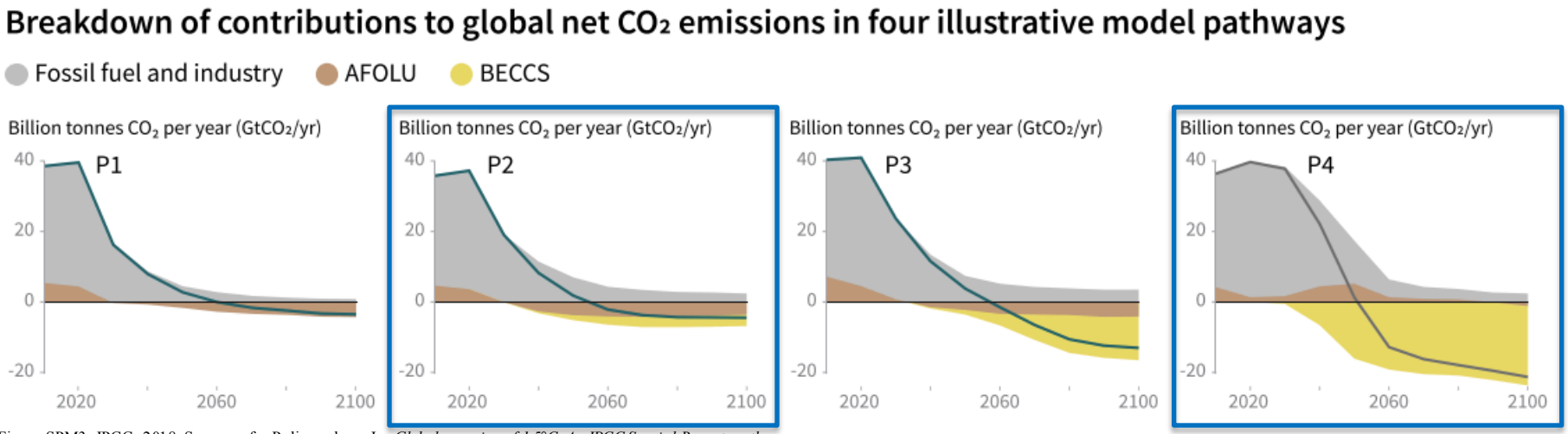

Figure SPM3, IPCC, 2018: Summary for Policymakers. In: *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels*

Déploiement limité de CDR/BECCS
En 2050, 7% des terres agricoles mondiales dédiées aux cultures de bioénergie
= Moindre impact sur la biodiversité et la sécurité alimentaire

Très grand déploiement de CDR/BECCS
En 2050, 1/3 des terres agricoles mondiales dédiées aux cultures de bioénergie (taille de **l'Inde**)
= Grand impact sur la biodiversité et la sécurité alimentaire

L'impact biodiversité du BECCS (BioEnergy with Carbon Capture & Storage) à grande échelle est lié à (1) la vaste étendue (2) sur des zones de haute biodiversité (tropiques), (3) avec monocultures et pesticides.

Les trajectoires 1.5°C avec beaucoup de BECCS (type P4) ne sont pas compatible avec la biodiversité

I. Grandes lignes d'une ambition commune climat et biodiversité

Ambition commune :

- **Une ambition climat** qui intègre la biodiversité =
  - **Des trajectoires 1.5°C compatibles avec la biodiversité** (limitant CDR et BECCS)
  - **Pour se mettre dans ces trajectoires une forte ambition climatique est requise dès aujourd'hui:**
    1. Transition rapide et massive : décarbonation de toute l'économie et réduction de la demande
    2. Déploiement massif des SFN (Solutions Fondées sur la Nature)

- **Une ambition biodiversité** qui intègre le climat ?

- **Sur les océans :** le développement des « trajectoires océans » ?

"COP25: une COP Bleue ?"

- La COP25 : peu d'ambition mais le pire a été évité—grande attente pour ambition en 2020

- **Une COP Bleue claire ?** L'océan invité star mais quelles retombées concrètes ?
  - Mention dans la décision 1/CP.25 + dialogue
  - Certaines Parties poussent pour l'inclusion de l'océan dans les NDCs
    - Quelques inquiétudes sur le potentiel de manque d'additionnalité ?

- **Néanmoins, le sujet climat-biodiversité monte**

  - **Négociations :** Climat-biodiversité dans la décision 1/CP.25 :
    - Pas de « welcoming » des rapports GIEC
    - Mais **Para 14: «** *Underlines* the essential contribution of nature to addressing climate change and its impacts and the need to address biodiversity loss and climate change in an integrated manner; »
    - Dialogues climat-océan et climat-usage des terres en 2020

  - **Side events :** des centaines sur les sujets biodiversité et océans

  - Des Parties qui se mobilisent pour pousser une ambition commune climat-biodiversité en 2020 (High Ambition Coalition for Nature and People)

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II. Ambition commune climat et biodiversité : pourquoi et comment en 2020 ?

1. **La science :** démontre l'urgence d'une ambition commune
   → 2020 : année de début de travail conjoint IPBES et GIEC sur climat-biodiversité ?

2. **L'agenda de la gouvernance internationale :** 2020 la « super année » climat–biodiversité, et grande attente que les résultats de la COP15 (CBD) et COP26 (CCNUCC), et la fin des négociations de haute mer, soient à la hauteur des attentes

3. **Politique internationale :**
   - Importance pour l'UE et l'Europe
     → Coopération UE-Chine sur le climat (et lien climat-biodiversité)
     → COP26 Présidence Royaume Uni (pré-COP en Italie)
   - Importance pour la France
     → Relation France-Chine (Déclaration de Pékin, suite en 2020)
     → Congrès IUCN à Marseille
     → High Ambition Coalition for Nature and People (co-lead avec le Costa Rica)

4. **Société civile :** exige une ambition climatique des Parties, et commence à exiger une cohérence entre ambition climatique et biodiversité

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Merci !

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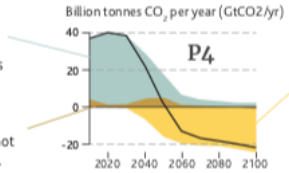
IDDRI Biodiversity (& food security) impacts of two 1.5°C pathways

A tale of two 1.5 °C net-zero worlds...

The role of the energy system, AFOLU, and BECCS in two 1.5°C pathways[1]

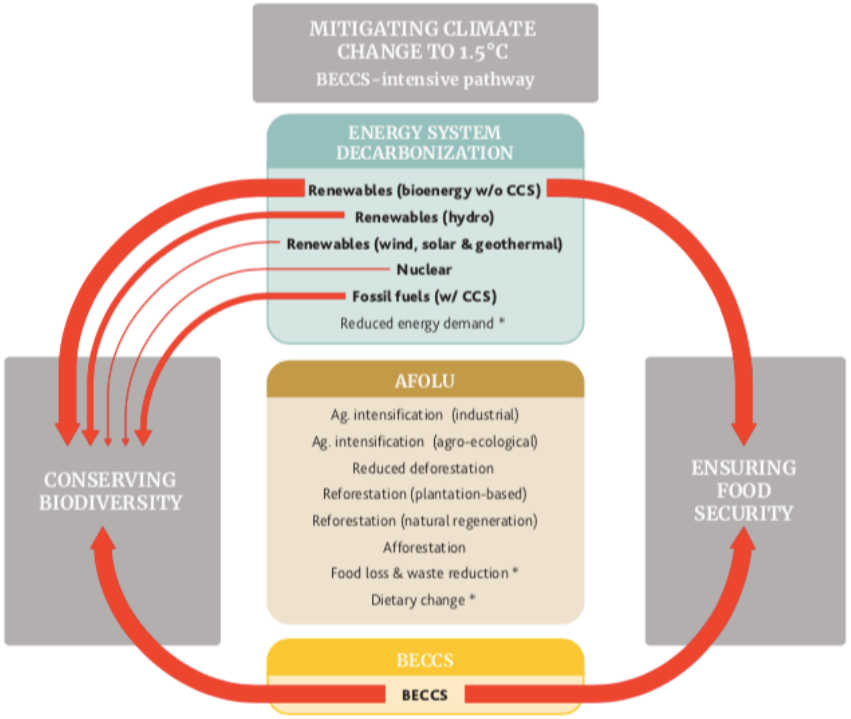
Slow **energy system** transition (i.e. late decarbonization with increased energy demand) requires greater efforts later efforts in coming decades.

AFOLU emissions are not consistently reduced through 2050 and the sector does not contribute to carbon-dioxide removal (CDR).



Reaching 1.5° C in spite of slow energy system transition requires massive CDR deployment—resulting in P4 in widespread Bioenergy with Carbon-Capture and Storage (**BECCS**) deployment (33 % of global cropland in 2050 would be allocated to energy crops).[2]

The biodiversity and food security impacts of climate mitigation measures



KEY MESSAGES

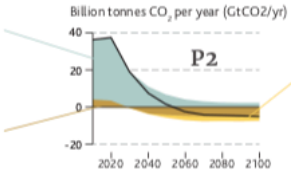
This Figure provides a schematic overview of the main positive or negative impacts on biodiversity and food security of two 1.5°C pathways: (1) one that is BECCS-intensive (e.g. P4), and (2) one with early deep decarbonization (e.g. P2). We highlight the impacts of measures within those families of measures that are deployed at scale in each pathway (i.e. energy system and BECCS in a P4-type pathway; energy system and AFOLU in a P2-type pathway). Climate and biodiversity interactions, and in particular the significant negative impacts of a BECCS intensive pathway reinforce three imperatives: 1) to rapidly decarbonize the energy system (privileging low-carbon energy sources that have the least negative biodiversity impacts) and reduce AFOLU emissions, 2) to reduce the demand of energy and other natural (e.g. agricultural) resources, and 3) to increase carbon sequestration in current land uses, avoiding massive land-use changes. These three elements should guide countries' enhanced Paris Agreement climate commitments in 2020.

[1] The graphs representing the P4 and P2 emissions pathways are redrawn from Figure SPM3, IPCC, 2018: Summary for Policymakers. In: *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels* (full citation at the end of the paper).
[2] Huppman, D. et al, (2018), IAMC 1.5°C Scenario Explorer and Data hosted by IIASA.

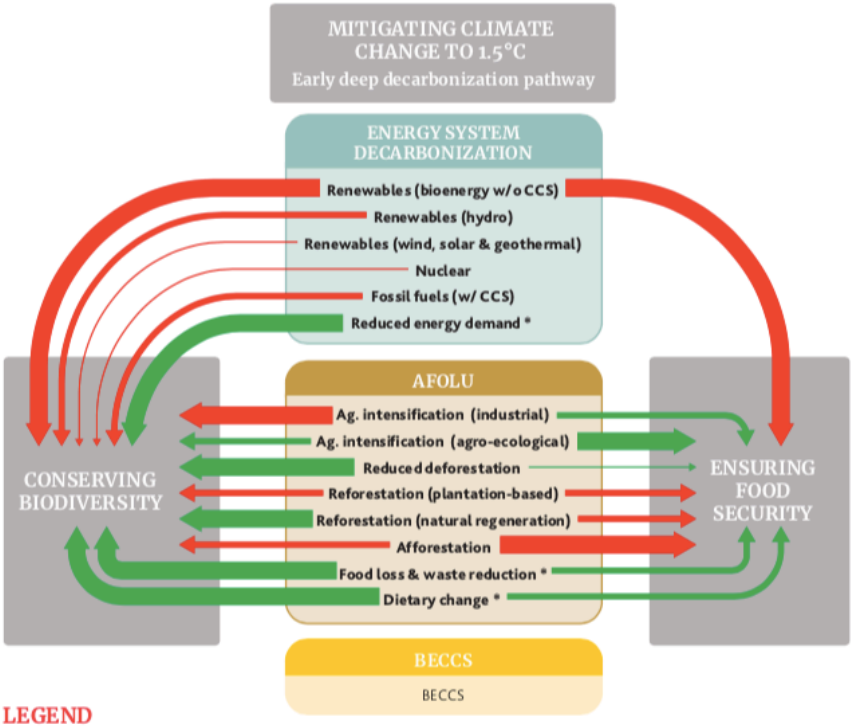
...and their biodiversity and food security impacts

Rapid **energy system** transition (i.e. deep decarbonization and strong energy demand reduction) results in steeper reductions now and need for less efforts in coming decades.

AFOLU sector goes from being net-emitter to a net sink (through emissions reductions and use of AFOLU CDR measures).



Rapid energy transition means significantly less CDR needed than in P4—resulting in low **BECCS** deployment (only 7% of global cropland in 2050 would be allocated to energy crops)). [2]



LEGEND

SOCIETAL GOALS

FAMILIES OF MITIGATION MEASURES

Mass deployment | Limited deployment

* Demand side measures

IMPACTS OF CLIMATE MITIGATION MEASURES ON BIODIVERSITY AND FOOD SECURITY

when measures are deployed at scale

	Positive	Negative
Large	←	→
Moderate	←	→
Small	←	→