



# NDC ASPECTS

## Enhancing International Cooperation through the Global Stocktake

Lukas Hermwille  
& Sebastian Oberthür



- “Sectoral systems” as central units of analysis: focus on specific and relevant challenges related to concrete “communities of action”/socio-technical systems (not the same as economic or emission sectors)
- Identification of sectoral challenges of and barriers to decarbonization
- Comparing the **potential** contribution of international institutions with what they **actually** contribute: identifying remaining gaps and un(der)exploited opportunities/potentials
  - Basis for thinking about how to fill gaps and more fully exploit potentials (existing/new institutions).
  - Dividing up the whole into units that are meaningful for actor behavior and policymaking

# Functions of Global Governance

## Guidance & Signal

Function derives from the principles and objectives on which intergovernmental and transnational institutions are based. Institutions can signal the resolve of members to pursue a certain course of action (decarbonization). This can provide direction beyond the respective international institution.

## Rules & Standards

Collective action may be enabled by establishing common/reciprocal obligations of result and standards of behaviour (obligations of conduct). This may include prohibition or prescription of certain behaviour, harmonisation of (technical) standards or provision of incentives.

## Transparency & Accountability

Collecting and analysing relevant data and identifying and addressing problems in implementation of agreed rules/standards.

## Means of Implementation

The provision of capacity building, technology (transfer), and financial resources including coordination efforts for effective allocation

## Knowledge & Learning

Creation and diffusion of scientific, economic, technical and policy-related knowledge on the understanding of and/or possible solutions to the problem at hand.

## Orchestration

Non-hierarchical coordination among international institutions through incentives, persuasion and similar means to foster synergies, help to fill governance gaps and rectify imbalances in transnational schemes.



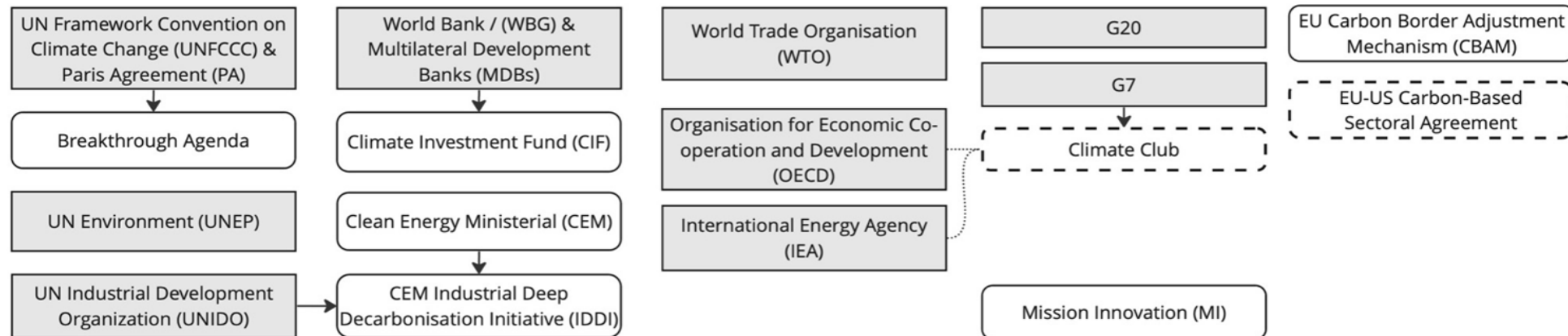


# Energy-intensive Industries



# Energy-intensive industries: Status Quo (I)

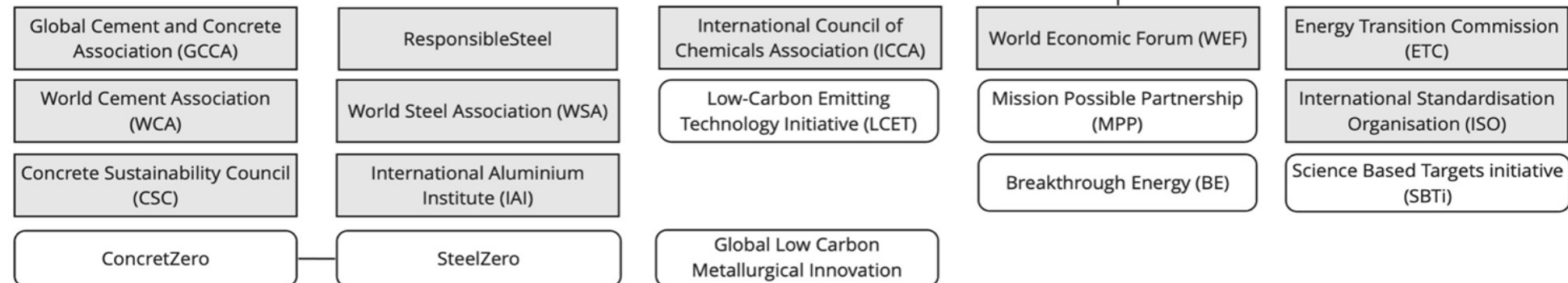
## Intergovernmental (state-actors)



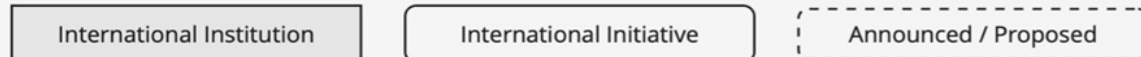
## Hybrid (state & non-state actors)



## Transnational (non-state actors)



## Legend



## Institutional Interlinkages

Based on: Otto & Oberthür, 2022

# Energy-intensive industries: Status Quo (II)

Function	Existing Supply	Remaining Gaps
Signal & Guidance	<ul style="list-style-type: none"> <li>  General decarbonisation goals</li> <li>  Sectoral &amp; industry visions/pathways</li> </ul>	Authoritative vision with specific objective for EIs
Rules & Standards	<ul style="list-style-type: none"> <li>  Standards for near-zero GHG basic materials</li> <li>  Public &amp; private procurement</li> <li>  Emerging policy coordination</li> </ul>	<b>Harmonisation of standards</b> <b>Enhance international lead markets</b> <b>Rules on competition &amp; carbon leakage</b>
Transparency	<ul style="list-style-type: none"> <li>  Emissions reporting &amp; certification</li> <li>  Review of global progress</li> </ul>	Strengthen emissions monitoring
Means of Implementation	<ul style="list-style-type: none"> <li>  Finance for mitigation &amp; capacity building</li> <li>  Finance for technology development</li> <li>  Infrastructure development</li> </ul>	<b>Increase finance for technology development</b> <b>Financing technology deployment &amp; diffusion</b> Engineering capacity
Knowledge	<ul style="list-style-type: none"> <li>  Analysis, data, best practices &amp; pathways</li> <li>  Stakeholder collaboration</li> </ul>	
Orchestration	<ul style="list-style-type: none"> <li>  Emerging orchestration &amp; collaboration</li> </ul>	<b>Orchestration of bigger picture</b> Coordination on means and rules

- **Exploiting the potential of existing institutions**
  - Scale-up of means of implementation and international lead-market initiatives
  - Harmonisation of standards across initiatives with overlapping membership
  - High-level review and orchestration of the sectoral landscape
- **Exploiting the potential of the Climate Club by addressing its shortcomings on membership, legitimacy and political feasibility**
  - Broaden the Club's membership beyond the G7
  - Clear commitments on finance, privileged access to lead markets, and proactive consideration of equity issues
  - Ensuring the consistency of the Climate Club with other agendas
- **Limited potential for international cooperation on carbon leakage in current geopolitical context.**  
Addressing other gaps seems to be more sensible in short to medium term.



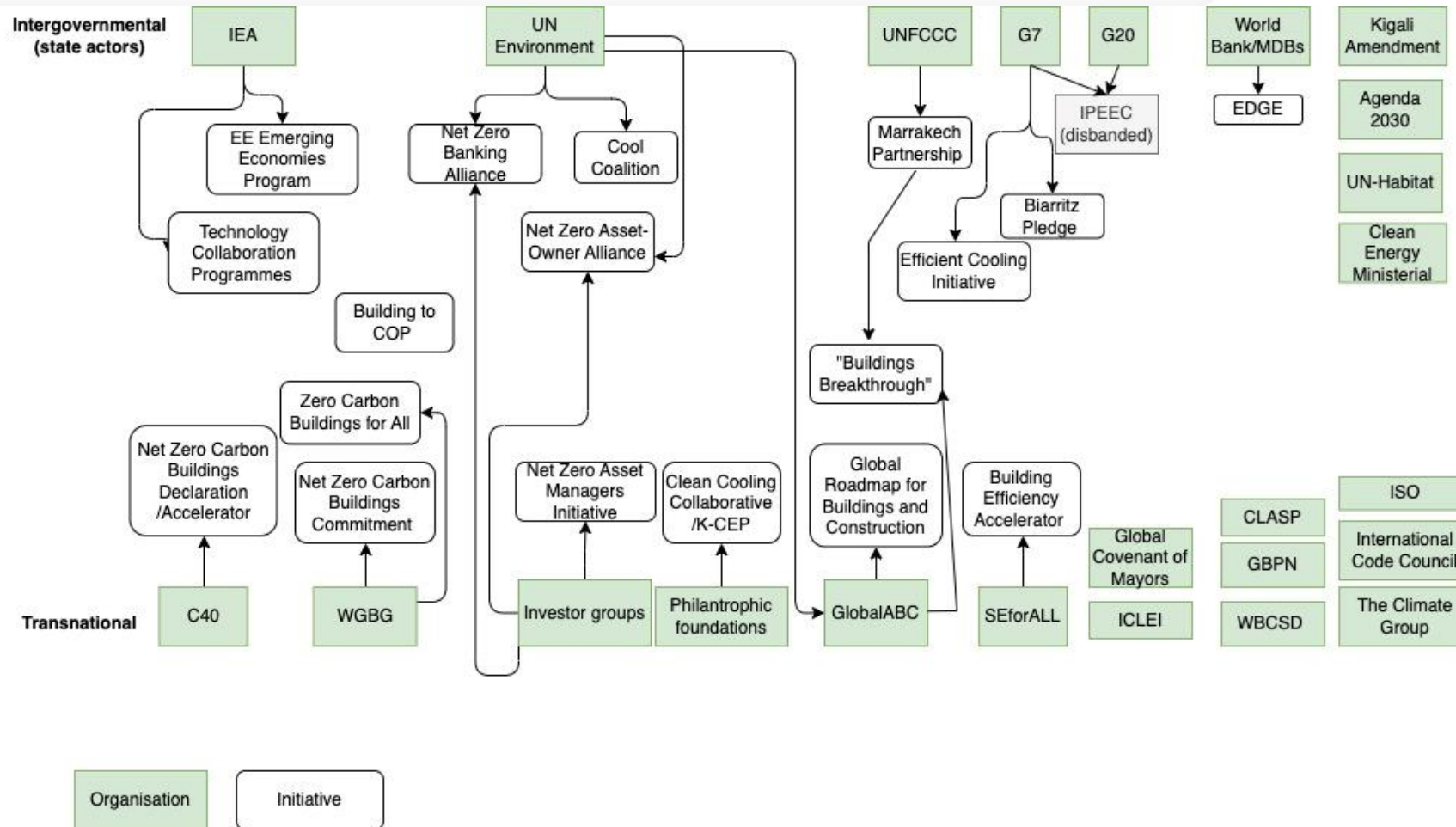


# Buildings

Photo by hey Tiffany! (CC BY-NC 2.0) via [Flickr.com](#)



# Buildings: Status Quo (I)



# Buildings: Status Quo (II)

Function	Existing Supply	Remaining Gaps
Signal & Guidance	Global roadmaps e.g. by Champions and Global ABC	<b>No authoritative vision with official government support</b>
Rules & Policies	Initiatives by C40, World Green Building Council and others	Potential for coordination among parties not exploited
Transparency	UNFCCC / PA reporting requirements   Mechanisms of non-Party initiatives	<b>UNFCCC / PA little attention to sectoral detail</b> <b>Robustness of non-Party initiatives to be seen</b>
Means of Implementation	Substantial provision of resources	<b>Lack of data on actual needs and flows</b>
Knowledge	Seems to be well-developed	
Orchestration	Emerging, e.g. “breakthrough”	Limited membership and resources

- “Breakthrough” seems obvious starting point
- Guidance and Signal:
  - Adopt clear objectives, e.g. for a fossil heating phase-out, phase-out of support for fossil heating
- Rules and Standards
  - Adopt coordinated commitments to decarbonise own building stock and to procure only highly efficient equipment and appliances
- Transparency and Accountability
  - Put greater emphasis on sectoral level
- Means of Implementation
  - urgently scale up support for policy development, planning, implementation, evaluation and enforcement capacity

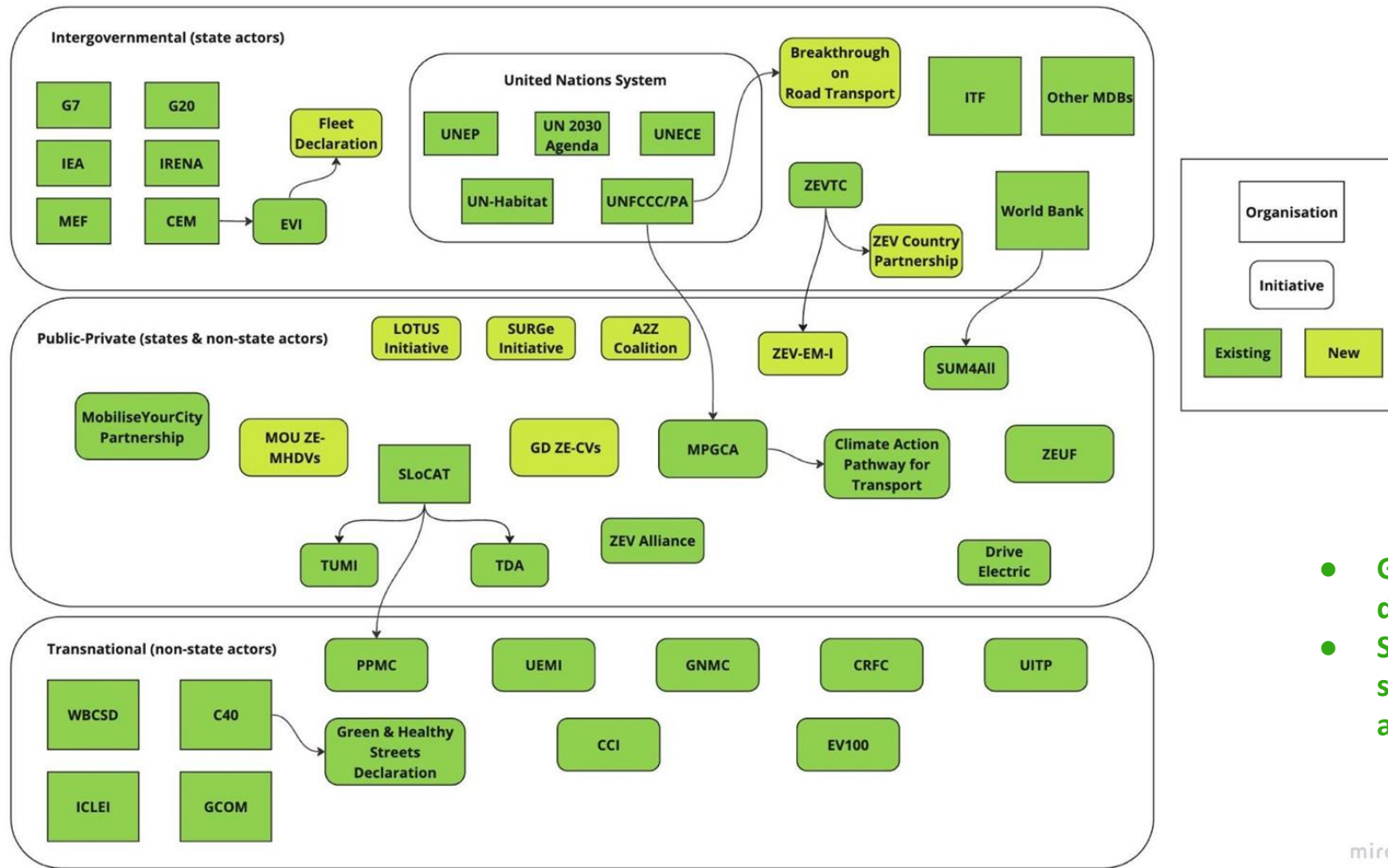




# Land Transport



# Land Transport: Status Quo (I)



- Governance landscape is dynamic and well developed
- Several institutions pursuing sustainable mobility-related activities

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# Land Transport: Status Quo (I)

Function	Existing Supply	Remaining Gaps
Signal & Guidance	Several institutions have issued transport-specific roadmaps (e.g. C40 Cities, MPGCA)	<b>No authoritative &amp; centralised roadmap nor a government-backed net-zero target</b>
Rules & Policies	Some institutions require commitments from members, including 'Climate Action Plans' (e.g. C40 Cities, TDA)	<b>General lack of concrete international rules between countries (no sectoral emissions targets/phase-out dates for ICE vehicles)</b>
Transparency	Some institutions require members to report on progress in decarbonising transport, including GHG emissions inventories (e.g. C40 Cities)	<b>PA's reporting requirements pay little attention to specific sectors (depends on what a party includes in its NDC)</b>
Means of Implementation	So far exploited to a much larger extent. For example, GFDT launched by WorldBank in 2021 (mobilise \$200 million to decarbonise transport)	<b>Support for high-emissions transport?</b>
Knowledge	Several institutions (IEA, UNFCCC, ITF etc)	
Orchestration	Some coordination efforts (e.g. ZEUF network which enhances coordination between existing institutions)	<b>General lack of orchestration/coordination, which will become increasingly important as more initiatives announced</b>



- Guidance and Signal:
  - Creation of an *authoritative transport-specific roadmap*, including a *government-backed net-zero target*
    - Via the new work programme for urgently scaling up mitigation ambition & implementation, potentially built on the Climate Action Pathway for Transport developed by the MPGCA
- Rules and Standards
  - Integration of *sector-specific emissions budgets* into NDCs
    - While the new work programme cannot 'impose' targets, parties can initiate specific discussions on thematic sectors (including transport) and propose the incorporation of emissions budgets voluntarily
  - Creation of a *climate club focused on electric mobility*
    - Climate club between key-car producing countries who agree to a concrete phase-out date for fossil fuelled cars, but also open to other countries who wish to join
- Transparency and Accountability
  - Development of *additional reporting requirements* under PA's ETF
    - Specifically focus on the implementation & achievement of NDCs in individual emitting sectors (including transport)

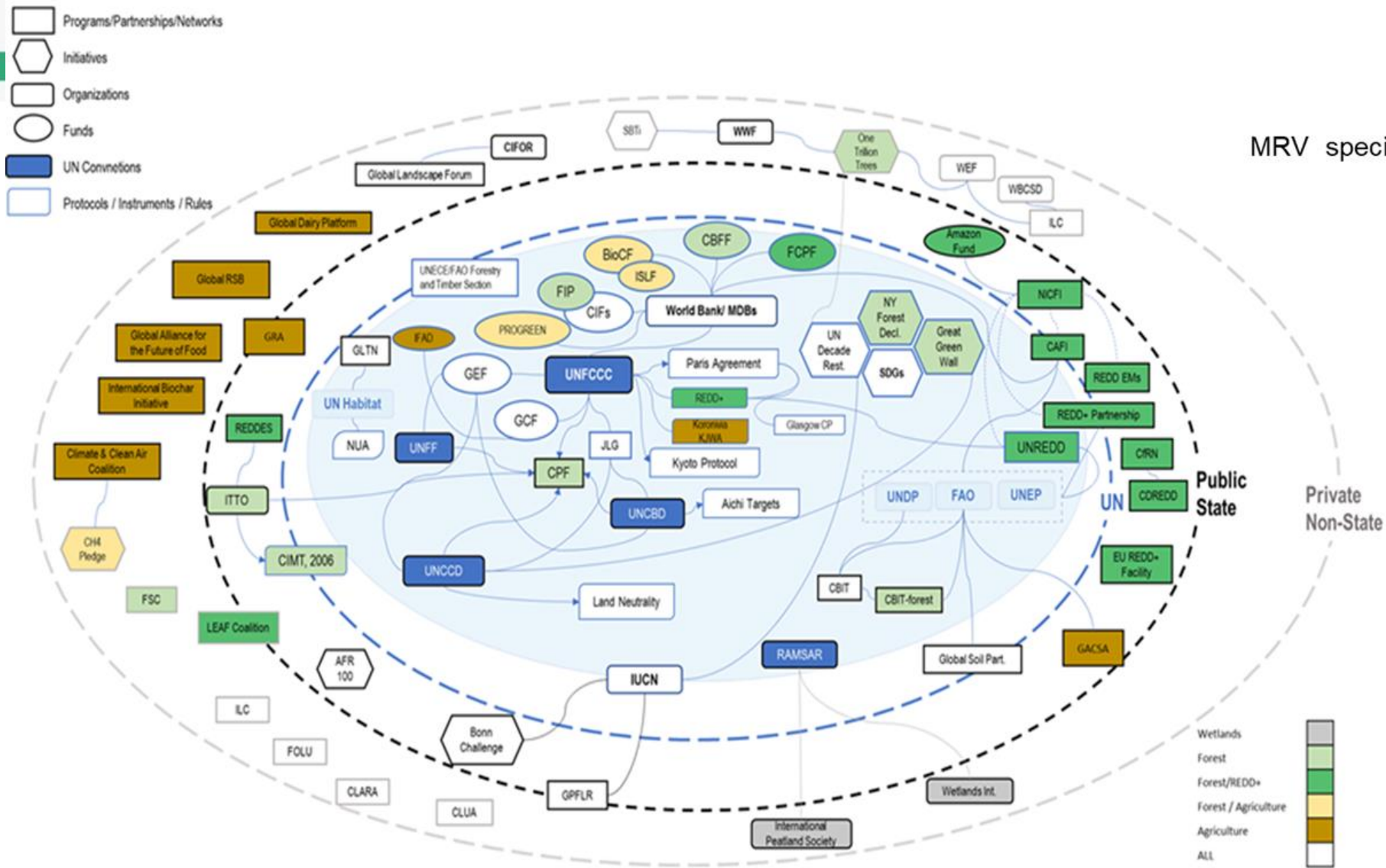


An aerial photograph showing a dense green forest on the left side of the frame, transitioning into a large, open, light-brown agricultural field on the right. The field appears to be a pasture or a recently cleared area. In the bottom right corner, there is a small section of a green, tilled agricultural field. The overall scene illustrates the interface between natural forest and human land use.

# Agriculture, Forestry and Land-use



# AFOLU: Status Quo (I)



MRV specific initiatives not included here





## AFOLU: Status Quo (II)

- Guidance and Signal:
  - Lack of transparency
  - Lack of high-quality data on carbon emissions
- Rules and Standards
  - Lack of institutional capacity
  - Complexity of rules and modalities
  - Uneven share of benefits
- Transparency and Accountability
  - Lack of transparency
  - Lack of high-quality carbon estimations, high uncertainties
- Means of Implementation
  - Unequal access to finance by countries
  - Uneven share of benefits
  - Opportunity cost
- Knowledge and Learning
  - Proliferation of potentially conflicting data
  - Lack of technical capacity
  - Environmental awareness
  - Access to education
  - Lack of trained workers
- Orchestration / coordination
  - Governance misalignment
  - Misalignment of cooperation agendas

- Overall: Orchestration and alignments to specific country needs on capacity building, implementation/investments and sustain results base financial mechanisms.
- Guidance and Signal:
  - Enhancing and aligning with the UNFCCC rules and modalities as a common framework, and make more inclusive the international governance initiatives
- Rules and Standards
  - Strengthening the application of internationally agreed rules and modalities that allow for the mobilization and more fair distribution of support according to specific country and stakeholders needs.
- Transparency and Accountability
  - Support the creation of capacities for NDC assesement and accountability processes under the ETF
- Means of Implementation
  - There is a need to identify and mobilize most appropriated blended finance to catalyze the necessary transformations in the sector (i.e. loans, grants, result base payments, etc) and increase the efficiency in resource allocation towards capacity building, investments on the implementation phase and incentives based on results.





# Recommendations for Enhanced International Cooperation



# Recommendations for the Global Stocktake: Action within the UNFCCC

- Include **sectoral breakdowns of targets** and specific sectoral policies in NDCs and LEDSS.
- Update the MPGs of the Enhanced Transparency Framework (ahead of 2028) to enable **systematic reporting on sectoral transformation challenges and opportunities**.
- **Strengthen accountability mechanisms** e.g. through leveraging the the annual high-level ministerial roundtable on pre-2030 ambition as an accountability checkpoint for sectoral commitments.
- Establish or mandate **sectoral decarbonization roadmaps** building on existing work including the Climate Action Pathways developed under the auspices of the High-level Champions

# Recommendations for the Global Stocktake: Action beyond the UNFCCC

- **Broaden and deepen minilateral initiatives** such as G7 Climate Club and (Glasgow) "Breakthroughs":
  - Creating clear follow-up and **review processes**
  - **Include relevant sectoral activities and commitments in NDCs** and submit them to the Paris Agreement's transparency arrangements
- GST should call on other, sectoral **international organisations and processes to align their activities with the Paris Agreement**. This is particularly relevant for:
  - International Maritime Organisation
  - International Civil Aviation Organisation
  - Ongoing negotiations on a global plastics pollution treaty

# NDC ASPECTS Consortium





## Published later today:

- van Asselt, H., Obergassel, W., Hall, C., Hermwille, L., Oberthür, S., Otto, S., Sanz, M. J., & Xia-Bauer, C. (2023). Leveraging the Global Stocktake for effective sectoral climate governance. PLOS Climate. <https://doi.org/10.1371/journal.pclm.0000229>

## Sectoral Governance Landscape Analysis:

- Energy-intensive Industries:  
<https://ndc-aspects.eu/sites/default/files/2022-10/D6.1b%20Global%20Governance%20for%20the%20Decarbonisation%20of%20Energy-Intensive%20Industries.pdf>
- Buildings:  
[https://ndc-aspects.eu/sites/default/files/2022-11/D6.1c%20Global%20Climate%20Governance%20for%20the%20Decarbonisation%20of%20the%20Buildings%20Sector\\_1.pdf](https://ndc-aspects.eu/sites/default/files/2022-11/D6.1c%20Global%20Climate%20Governance%20for%20the%20Decarbonisation%20of%20the%20Buildings%20Sector_1.pdf)
- Land Transport:  
[https://ndc-aspects.eu/sites/default/files/2022-11/D6.1d%20Assessing%20Climate%20Governance%20Gaps%20and%20Options%20for%20the%20Land%20Transport%20Sector\\_2.pdf](https://ndc-aspects.eu/sites/default/files/2022-11/D6.1d%20Assessing%20Climate%20Governance%20Gaps%20and%20Options%20for%20the%20Land%20Transport%20Sector_2.pdf)
- Agriculture, Forestry and Land Use:  
<https://ndc-aspects.eu/sites/default/files/2022-10/D6.1a%20Climate%20Governance%20Gaps%20and%20Options%20for%20the%20Land%20Use%20Sector.pdf>

## Recommendations for the Global Stocktake:

- Submission “Enhancing International Cooperation through a Sectoral Perspective  
[https://ndc-aspects.eu/sites/default/files/2023-02/20230228\\_NDC%20ASPECTS\\_GST\\_submission\\_fin\\_0.pdf](https://ndc-aspects.eu/sites/default/files/2023-02/20230228_NDC%20ASPECTS_GST_submission_fin_0.pdf)