

Government Reduction of Emissions for Environmental Net + Gain

PROGRAMME DESCRIPTION

CHAPTER 1

22 April, 2022 | Earth Day





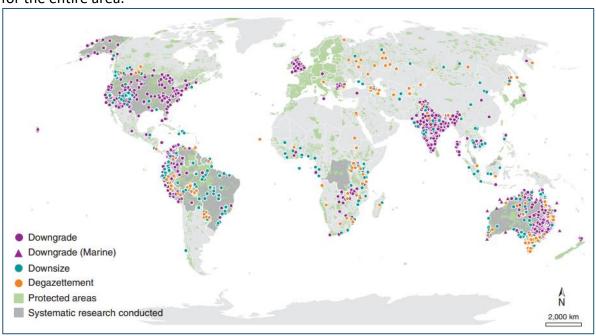
1 The need for reinforcing the protection of protected areas

There are some natural places that we cannot afford to lose due to their irreplaceable carbon reserves, whose value goes beyond carbon. If these reserves are lost, key biodiversity will be lost, and carbon could not be recovered by mid-century when we need to reach net-zero emissions to avoid the worst climate impacts.

The carbon released through the burning of fossil fuels would take millennia to return to Earth from atmosphere. Though the timeframe of carbon recovery from ecosystems such as peatlands, mangroves and old-growth forests is shorter (centuries), this timeframe still exceeds the remaining time to avoid the worst impacts of global warming.

An estimated 20% of irreplaceable global carbon is in protected areas intended to safeguard biodiversity in perpetuity. However, widespread legal changes (protected area downgrading, downsizing, and loss of its legal protection for the entire area) undermine their durability and efficacy at an alarming and increasing rate, primarily associated with industrial-scale resource extraction and development¹ as shown in *Figure 1* and *Figure 2*.

Figure 1. Global patterns of protected area downgrading, downsizing, and loss of its legal protection for the entire area.



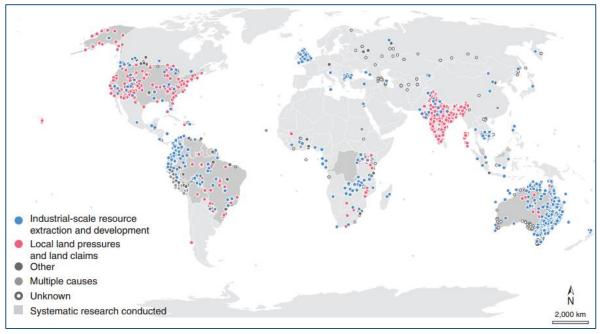
Noon et al. (2022). Mapping the irrecoverable carbon in Earth's ecosystems.

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¹ Golden, R. *et al.* (2019). The uncertain future of protected lands and waters. *Science*, *364* (6443), 881-886. https://www.science.org/doi/10.1126/science.aau5525



Figure 2. Proximate causes of protected area downgrading, downsizing, and loss of its legal protection for the entire area.



Noon et al. (2022). Mapping the irrecoverable carbon in Earth's ecosystems.

But there are also other risks to protected areas beyond legal actions to reduce them, such as illegal logging, agriculture, cattle ranching, and mining. Since 2010, agriculture, logging, and wildfire have caused at least 4.0 Gt of irrecoverable carbon emissions. The world's remaining irrecoverable carbon faces land-use conversion and climate change risks². These risks can be reduced through proactive protection and adaptive management.

Analyses that compared deforestation inside and outside protected areas have shown that protected areas can effectively reduce deforestation, not only inside them but also in nearby forests. These analyses focused on regional or countrywide subsets of protected areas³.

In 2010, Scharlemann *et al.* estimated that, between 2000 and 2005, 1.75 million ha of forest were lost from protected areas in humid tropical forests, representing about half as much carbon as the same area of unprotected forest. They estimated that the reduction of these carbon emissions from

²Noon, Monica; Goldstein, Allie; Ledezma, J. Carlos; Roehrdanz, Patrick; Cook-Patton, Susan C.; Spawn-Lee, Seth A.; Wright, Timothy; Gonzalez-Roglich, Mariano; Hole, David G.; Rockström, Johan and Turner, Will R. (2022). Mapping the irrecoverable carbon in Earth's ecosystems. Natural Sustainability.

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³ Fuller, C. *et al.* (2019). First, do no harm: <u>A systematic review of deforestation spillovers from protected areas.</u> *Global Ecology and Conservation*, *18*, 1-12.



ongoing deforestation in protected sites in humid tropical forests could be valued at USD 6,200–7,400 million depending on the land use after clearance. This situation is now far from improving. This value represents 1.5-1.8 times the estimated spending on protected area management in these regions⁴.

Despite their importance as climate stabilisers, most carbon-rich ecosystems are only minimally protected from a climate policy perspective. Mainstream policy instruments such as carbon offsetting are not designed to protect large, intact carbon-rich sites. Instead, the emphasis lies on restoring degraded areas and associated increases in net carbon sequestration rates rather than preserving carbon that has been saved away little by little.

The GREEN+ Jurisdictional Programme seeks to support those protected areas that have been effective in the past in proactively decreasing or halting deforestation, without the need to demonstrate that deforestation is ongoing. It moves from the logic of reducing deforestation and forest degradation (REDD) to conservation (REDD+) to conserve some of the most valuable carbon in terms of biodiversity and environmental services.

2 The GREEN+ Jurisdictional Programme

The GREEN+ Jurisdictional Programme (GJP) is a climate change mitigation initiative to accelerate subnational economy decarbonisation based on jurisdictions' momentum of conservation of protected areas. Our vision for the future is that subnational governments can reach their climate ambitions to meet the net-zero global goal.

It was created by an alliance of <u>CC35</u>, <u>Cercarbono</u>, <u>EcoRegistry</u>, <u>Global Footprint Network</u>, <u>Isolas</u>, <u>Lockton</u>, <u>R20</u>, <u>rsk</u>, <u>Satellogic</u>, and <u>The Energy Coalition</u> with the support of subnational and capital district governments, in cooperation with several leading regions, NGOs and Clean-Tech companies to promote a jurisdictional mechanism to conserve high-value carbon stored in protected areas while triggering jurisdictional decarbonisation.

Under this Programme, the existing carbon in effectively conserved protected areas of a sub-national jurisdiction (subject to some discounts based on risk and inaccessibility) is recognised as carbon credits. These credits are traded on the offset market, and income is deposited in a trust fund to guarantee the future conservation of protected areas and to generate new jurisdictional decarbonisation initiatives.

A partial release of trust funds is made periodically during the crediting period of the jurisdictional initiative, based on achieved results, both in the conservation of the protected areas and in additional projects.

⁴ Scharlemann, J. et al. (2010). Securing tropical forest carbon: the contribution of protected areas to REDD. Fauna & Flora International, Oryx, 44 (3), 352-357.

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3 Programme rationale

The methodology for conserving forest carbon stocks in protected areas rewards the effective historical conservation of these areas. Forest protected areas with an average deforestation rate over the last ten years of less than 50% compared to the deforestation rate over the same period for forested areas that are not jurisdictional protected areas are eligible.

Not all the carbon stored in these areas is eligible, as, in any predictable scenario, some of it would not have been lost. Therefore, the quantification of carbon eligible for conservation credits requires discounting (see *Figure 3*):

- The average carbon stock in the predominant post-deforestation land use occurring in the jurisdiction
- The carbon stored in remote, inaccessible areas.
- The carbon that would be lost based on the projected historical deforestation rate of jurisdictional protected areas (although this carbon could be converted to deforestation emission reduction credits in the future if historical deforestation trends can be reduced).

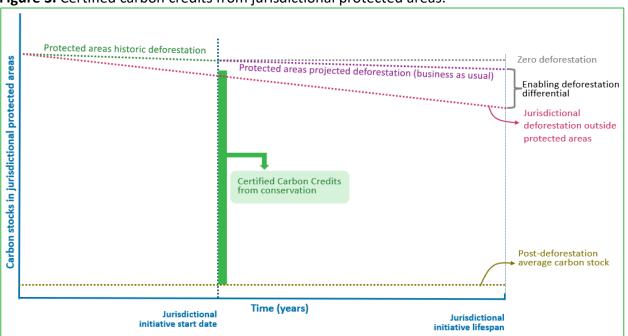


Figure 3. Certified carbon credits from jurisdictional protected areas.



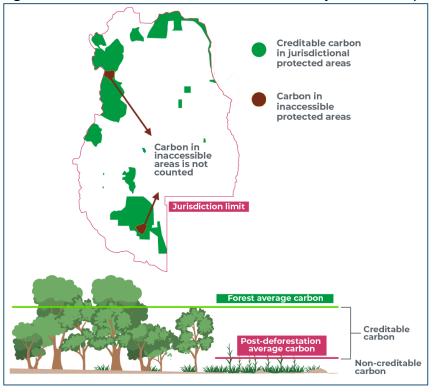


Figure 4. Creditable and non-creditable carbon in jurisdictional protected areas.

Carbon credits are granted to jurisdictional protected areas at the beginning of the initiative, endorsed to the GJP and offered for third-parties offsetting. The money from these credits is transferred to the GREEN+ Trust to ensure the future conservation of protected areas and to spread mitigation initiatives to other sectors of the jurisdiction, such as construction, energy, transport, and waste management.

Once the money from the conservation certified carbon credits is deposited, a distribution of the funds is made by allocating a percentage operational fee for the GREEN+ Jurisdictional Programme and another fee for the operation of the GREEN+ Trust.

The remainder is distributed as follows:

- A minimum of 5% to design and execute the protected areas managing plans.
- Between 35% and 50% for net reduction of deforestation in the jurisdiction, which could include creation of new protected areas and restoration of areas to increase connectivity between protected areas or connectivity of protected areas with other high biodiversity ecosystems in the jurisdiction.
- The remainder is allocated for new jurisdictional decarbonisation initiatives in non-land use sectors.
- Additional credits ("consequential credits") can be produced from restoration initiatives, projected deforestation abatement in jurisdictional protected areas and decarbonisation initiatives resulting from the GREEN+ Jurisdictional Programme, as shown in *Figure 5*.



Jurisdictional conservation of protected areas (and reduced emissions from deforestation) Carbon stocks in jurisdictional PAs Funds are paid into a trust through a Smart Contract. Jurisdictional protected areas project scenario (reduced emissions from deforestation). Initial disbursement for implementation of the first X years Jurisdictional protected Periodic verifications and disbursements. Jurisdictional initiative start date Jurisdictional initiative Consequential mitigation (e.g., restoration, energy, transport, waste management) Funds allocation to consequential mitigation. emissions Other sector(s) jurisdictional baseline Other sector(s) jurisdictional project scenario Periodic verifications, certifications, and disbursements. Jurisdictional initiative start date Jurisdictional initiative Certified carbon credits Time (years)

Figure 5. Consequential mitigation of Jurisdictional GREEN+ projects.

Leveraged by the GREEN+ Jurisdictional Programme, the reinvestment of funds generates a cascading effect, resulting in additional jurisdictional decarbonisation initiatives and additional consequential carbon credits. Consequential credits are offered as a preferred option to the investors who initially purchased the conservation credits at a 50% discounted price calculated at the current market price.

4 Programme expansion

The GREEN+ jurisdictional Programme comprises two phases. The first will be a pilot phase, starting in 2022, with six sub-national jurisdictions and six capital districts. The second phase will begin in 2024 and allow for open participation of all interested jurisdictions and capital cities.

5 Programme governance

The GREEN+ is a programme based in California governed by a high-level Executive Board, composed by members from CC35, The Energy Coalition and R20, and chaired by the Global Footprint Network. The Programme comprises five separate areas, one panel and one unit as shown in *Figure 6* and described below.



Figure 6. Governing structure of the GREEN+ Jurisdictional Programme.



5.1 Legal Board

The Legal Board is responsible for overseeing all legal aspects of the GJP. This includes the development of agreements and contracts with jurisdictions, the establishment of agreements with other institutions, the basis for tenders required by the Programme, as well as the legal review of the protocol, methodologies, guidelines, formats, and tools established by the Programme and their suitability for application to the national and sub-national circumstances where they are applied.

The Legal Board also participates in the Proposal Selection Panel and interacts with the other areas as required.

5.2 GREEN+ Trust

The GREEN+ is composed by members selected from the members institutions of the Executive Board and from Isolas, Lockton, and rsk.

Trust is responsible for the fund custody and the regulation of smart contracts, in coordination with the certification standard and the monitoring of mitigation initiatives. Its functions include:

- Receive and hold 100% of the money from the sale of credits from the GJP, in separate trust accounts for each jurisdictional initiative.
- Define the fees involved in all relevant processes.
- Release part of the initial funds to enable the design, registration, and validation, as well as initial
 implementation and verification of conservation and consequential projects. The initial funds required until the first verification is calculated beforehand as part of the initiative design.
- Receive from the standard periodic certification of credits resulting from verifications of consequential projects.
- Upon periodical verification of conservation of protected areas and certification of consequential projects credits, release funds to the jurisdictional initiative for implementation during the next verification period.



5.3 Proposals Selection Panel

The Proposals Selection Panel comprises at least one member from each of the five Programme Areas. It oversees reviewing and approving (if applicable) the initiative proposals submitted by the jurisdictions.

The panel evaluates the proposals in terms of their compliance with the rules and procedures established by the Programme, including:

- The power to enter into agreements.
- The capacity for action in the territory for implementation of the initiative and the feasibility of the proposed activities.
- The eligibility of the proposed areas and activities.
- The *ex-ante* estimates of total mitigation potential of the initiative.
- The proposed release of funds.
- The application of the selected methodologies.

5.4 Certification Standard

<u>Cercarbono</u>, the certification standard of the GREEN+ Jurisdictional Programme, attends the regulatory structure of the Programme, including the framework protocol, methodologies, and tools necessary for the certification process of the jurisdictions' conservation and decarbonisation initiatives. It is also responsible for regulating and overseeing the entire project certification process, including validation and verification by validation and verification bodies (VVBs) and the certification and issuance of credits.

The standard is also part of the Fund Custody and the Technical Assistance Unit.

5.4.1 Technical Assistance Unit

The Technical Assistance Unit (TAU) is a team led by the Certification Standard and composed of members from the Legal Board, the Registry (EcoRegistry), and the Monitoring Unit to support the jurisdiction, project developers and VVBs in technical, administrative, and legal aspects.

5.4.2 Approved methodologies

GREEN+ has a specific methodology for conservation and reducing deforestation of effectively protected areas. For sectors other than land use (construction, energy, transport, and waste management), the use of methodologies accepted by the standard is allowed.

5.4.3 Validation and verification

Cercarbono has <u>authorised Validation and Verification Bodies</u> (VVBs), which are responsible for validating and verifying certified projects. VVBs authorised by Cercarbono, and other VVBs may apply for authorisation to act in audits of jurisdictional initiatives approved by the GJP.



Authorised VVBs can validate all projects in the land-use sector and other sectors. The verification of protected area conservation and restoration projects (if any in a jurisdictional initiative) will be carried out by Satellogic, through an automatic process that is entirely independent of the initiative implementers. The other VVBs will oversee the verifications of the consequent projects (construction, energy, transport, and waste management).

5.5 Registry

The certification standard uses the EcoRegistry registration platform. The registry addresses the issuance, monitoring and cancellation of the carbon credits generated by the jurisdictions in close coordination with the certification standard and the Trust Fund.

5.6 Monitoring Unit

The Monitoring Unit, led by Satellogic, is responsible for monitoring forests and generating periodic data on deforestation in the jurisdictions through a satellite process, independent of jurisdictional initiatives. According to the ISO 14064 Standard, monitoring is the basis for *ex-post* calculations and subsequent verification of forest conservation and reduced emissions from deforestation activities.

Monitoring of other activities such as restoration and those implemented in different sectors should be carried out directly by the implementers. In both cases, auditing the monitoring will be the responsibility of the VVBs as part of the verifications.

6 Initial funding and funds allocation

Jurisdictions applying to the Programme shall submit a jurisdictional initiative project design document (PDD) for jurisdictional decarbonisation, including the mitigation actions described in Section 8.

Carbon in eligible jurisdictional protected areas shall be quantified according to the *Carbon+ Methodology for Conservation of Forest Carbon Stocks in Jurisdictional Protected Areas* ("The Carbon+ Methodology") of the standard. Upon compliance with its eligibility and carbon accounting requirements, these stocks shall be certified as carbon credits and traded by the GREEN+ Programme. Because of the public nature of the ownership of these credits, they cannot be held for speculation and must be sold as soon as possible.

The resulting funds are deposited in the GREEN+ Trust, allocated to the corresponding jurisdictional initiatives, and periodically released to the jurisdiction once the Proposal Selection Panel approves the proposed PDD.

Jurisdictional proposals shall estimate the amount required for the **initial implementation** of projects until the first verification including a) compliance insurances, implementation, and monitoring of jurisdictional deforestation, and b) monitoring of consequential projects, verification, and certification. Costs listed in a) will be paid directly by the GREEN+ Trust from the initiative's trust funds. a) and b), together, may not exceed 20% of the funds allocated to the jurisdictional initiative. This amount shall be released upon the signature of the agreement once available.



The remaining funds will be distributed annually for the next nine years, starting from the first disbursement, subject to compliance with the mitigation targets established in the PDD. If there is a one-year performance of the initiative below that set out in the GJP protocol, the corresponding funds will not be released in that year. Failure to comply, according to *Section 7.6* will result in the cancellation of the initiative, and the remaining unreleased funds may be allocated to replenish the fund of another new jurisdictional initiative partially or fully.

7 Methodological issues

7.1 Jurisdictional initiative starting date, duration, and crediting period

GREEN+ does not accept retroactivity. The start date of initiatives may be any current or future date. The initiative lifespan shall be determined by the most extended duration of the consequential projects included in the PDD in the initial validation, according to the relevant methodology or, failing that, by the GREEN+ protocol.

The accreditation period shall be ten years from the initiative's approval and may be renewed separately for each subsequent project per the GREEN+ protocol or relevant methodologies.

7.2 Eligible sectors and activities

Eligible sectors under the GJP are construction, energy, forestry, transport, and waste management.

Activities for conservation of carbon stocks in jurisdictional protected areas and avoided deforestation in the jurisdiction are mandatory.

The following are eligible activities under the GJP:

- Restoration of areas to increase connectivity between protected areas or connectivity of protected areas with other high biodiversity ecosystems in the jurisdiction.
- Creation of new protected areas.
- Enlargement or upgrading of existing protected areas.
- Reduction (avoidance or destruction) of greenhouse gas emissions using solar energy.
- Reduction (avoidance or destruction) of GHG emissions by GHG sources in solid and liquid waste management plants.
- Reduction (avoidance or destruction) of GHG emissions by GHG sources in entities owning or using vehicle fleets (public and private).
- Incentivising the use of private vehicles powered by electric energy or green hydrogen.

7.3 Carbon stocks quantification

7.3.1 Eligible carbon pools

Eligible pools for quantifying forest carbon stocks in jurisdictional protected areas are above-ground biomass, below-ground biomass, and soil organic carbon.



7.3.2 Calculation of forest carbon stocks in pools

Carbon stocks in pools, for conservation and for avoided deforestation are considered fixed values along the crediting period. If there is a proposed country Reference Level to the UNFCCC with carbon stock data for the selected pools, specific to the forest types in the jurisdiction, these values are used; if such values do not exist, data from published or recently conducted forest inventories should be used to define them, with an appropriate level of confidence, as set out in the *Carbon+ Methodology*.

Carbon stocks in pools for restoration activities are time-dependent. Therefore, they must be modelled for *ex-ante* calculations (for validation) and estimated based on inventory data for *ex-post* calculations (for monitoring, verification, and certification).

7.3.3 Calculation of post-deforestation carbon stocks in pools

As part of the PDD, the initiative proponent shall analyse the predominant post-deforestation land use in the jurisdiction and its carbon stock in selected pools, using recent (less than five years) publications or other reliable information as stated in the *Carbon+ Methodology*.

7.3.4 Estimation of jurisdictional deforestation rates

If there is a Country Reference Level (FREL) proposed to the UNFCCC, with jurisdiction-specific deforestation data, these values are used; if there is no FREL or no jurisdiction-specific data, a historical analysis of deforestation in the jurisdiction for the last 10 years and a projection based on an analysis of agents and drivers of deforestation should be performed. In any case, since NREFs do not separate historical deforestation data for protected areas, similar analysis and projection will need to be done for protected areas.

7.4 Addition of new instances/consequential projects

Jurisdictional initiatives may add new projects and new instances to existing projects during verifications without affecting the overall duration of the initiative.

7.5 Monitoring, start date, and crediting period

As part of the jurisdictional initiative PDD, jurisdictions shall also submit a monitoring plan, setting out the periodicity of verifications, which may differ for each project under the initiative. Deforestation monitoring and verification in the jurisdiction (including protected areas that are part of the initiative) will be carried out annually, remotely and by a third party (Satellogic).

Jurisdictional initiatives are monitored based on the rules defined in the protocol and the corresponding methodologies at three levels:

Administrative monitoring, which includes auditing resource management per Smart Contracts, carried out on an annual basis during the first ten years of the jurisdictional initiatives, required for the release of the trust funds.



Monitoring of deforestation in the jurisdiction is accomplished annually, through a third-party, automated low-Earth-orbit satellite platform, which delivers project mitigation results directly to the standard and the GREEN+ Trust.

Monitoring of the other decarbonisation projects is accomplished by project developers and audited by accredited validation and verification bodies.

7.6 Non-compliance

Disbursements of funds to jurisdictional initiatives are subject to meeting the mitigation targets proposed in the initiative formulation. A performance of the initiative below that set out in the GJP protocol for one or more years will result in the sanctions set out therein, which may entail cancellation of the agreement. It shall be up to the jurisdiction to decide whether to continue with the implementation of the initiative; however, the destination of the remaining credits shall be the one initially agreed.

The legal degradation of the protected areas subject to the initiative (downgrading, downsizing, or destitution) will be analysed by the Programme's board of directors, which will be responsible for establishing the corresponding sanction, which could be the total cancellation of the initiative's support.

8 Jurisdictional initiatives

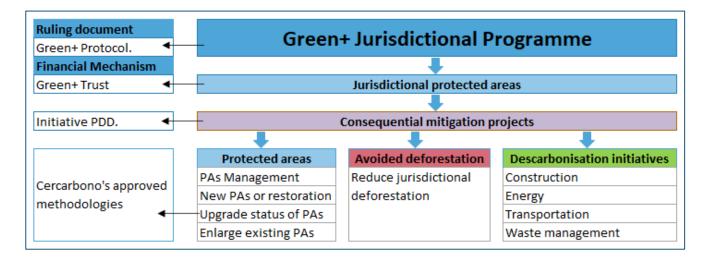
Second-tier sub-national jurisdictions (states, departments, provinces, and capital districts) can propose initiatives to the GREEN+ Jurisdictional Programme. To be accepted, the following requirements must be met:

- The jurisdiction must have at least one official forest protected area.
- All official areas of the jurisdiction must be included.
- Adherence of the jurisdiction to the GREEN+ Jurisdictional Programme.

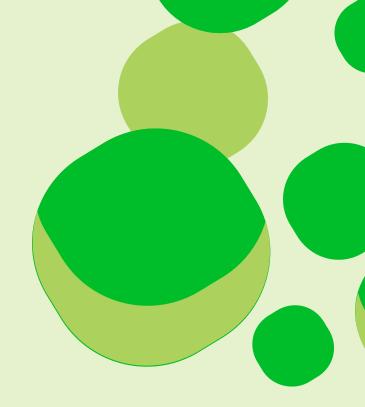
The initiative proponent (either the jurisdiction or its delegate) designs and proposes a jurisdictional initiative to the Programme. This initiative must include the following projects:

- Activities for conservation of carbon stocks in jurisdictional protected areas.
- Activities to avoid deforestation in the jurisdiction.
- One or more consequential emission reduction projects in any of the eligible sectors (clean energy, transportation, construction, or waste management).





Such projects shall be designed in accordance with the relevant approved methodologies defined by the Programme's standard (Cercarbono).





Comments to the GREEN+ Jurisdictional Programme should be sent to

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