



REDD+ Forest Protection Projects

How protecting threatened forests from deforestation and degradation generates carbon credits while conserving biodiversity and supporting forest communities

PROJECT TYPE GUIDE | Verra VCS + CCB / Gold Standard | SDG 13, 15, 1, 8

Standard	Verra VCS + CCB / Gold Standard
SDG alignment	SDG 13, 15, 1, 8
Typical credit yield	1 – 10 tCO ₂ e per hectare per year
Project life	20 – 30 years
Indicative price	GBP 5 – 15 per tCO ₂ e (varies significantly by quality)

What is REDD+?

REDD+ stands for Reducing Emissions from Deforestation and forest Degradation, with the + representing sustainable forest management and enhancement of forest carbon stocks. It is a mechanism under the UNFCCC that allows tropical and subtropical countries to generate carbon credits by demonstrating that their forests are being protected from deforestation at rates lower than a historical baseline.

REDD+ projects work by establishing a reference level — the rate at which forest would have been cleared without the project — and then demonstrating, through satellite monitoring and ground-truthing, that deforestation rates have been reduced. The difference between the baseline deforestation rate and the actual rate represents the emission reductions that can be credited.

- Protects existing forest carbon stocks — trees already standing
- Verified through satellite monitoring (e.g. Global Forest Watch) and ground surveys
- Verra VCS is the dominant standard; Climate Community and Biodiversity (CCB) adds-on co-benefit verification
- Controversial due to permanence concerns and additionality challenges
- Prices vary widely — high-quality projects with strong co-benefits command premiums

How Credits Are Generated

Reference Level Setting

The reference level (or baseline) is the most contested aspect of REDD+ methodology. It must demonstrate what deforestation would have occurred without the project — typically based on historical deforestation rates adjusted for socioeconomic and policy trends. Reference levels are set at national or jurisdictional level in many newer REDD+ frameworks.

Forest Carbon Measurement

Forest carbon stocks are measured through a combination of remote sensing (satellite imagery to detect canopy cover) and ground-based forest inventory (measuring tree diameter and height across sample plots). Allometric equations convert these measurements to above-ground biomass, with below-ground biomass estimated as a fraction of above-ground.

Forest Type	Typical Carbon Stock	tCO ₂ e/ha/yr (deforestation avoided)
Tropical rainforest	250 - 400 tCO ₂ e/ha	5 - 15
Tropical dry forest	100 - 200 tCO ₂ e/ha	2 - 8
Subtropical forest	80 - 150 tCO ₂ e/ha	2 - 6
Peatland forest	400 - 3,000 tCO ₂ e/ha	10 - 50+

Key Controversies and Criticisms

REDD+ has faced significant scrutiny from researchers and journalists, particularly following 2023 investigations that questioned the validity of reference levels at several large projects. Buyers and developers should be aware of the following issues:

- **Additionality:** Were the forests actually at risk? Inflated reference levels can generate credits for forests that were never threatened
- **Permanence:** A protected forest today can be deforested tomorrow — all VCS projects must set aside a buffer pool of credits to cover reversal risk
- **Leakage:** Protecting one area can simply displace deforestation to adjacent areas
- **Indigenous land rights:** Some projects have been criticised for inadequate community consultation and benefit-sharing
- **Methodological integrity:** The 2023 Guardian/Zeit/SourceMaterial investigations found significant overcrediting at several major projects

Higher quality REDD+ projects — those with strong community engagement, transparent monitoring, conservative reference levels, and third-party CCB certification for co-benefits — are less exposed to these risks and command price premiums accordingly.

Project Economics

Project Size	Annual Credits	Annual Revenue (at GBP 8/t)	Development Cost
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10,000 ha	30,000 - 80,000 tCO ₂ e	GBP 240k - 640k	GBP 500k - 1.5M
50,000 ha	150k - 400k tCO ₂ e	GBP 1.2M - 3.2M	GBP 1.5M - 4M
200,000 ha	600k - 1.6M tCO ₂ e	GBP 4.8M - 12.8M	GBP 4M - 10M

Note: Credit volumes based on 3-8 tCO₂e/ha/yr for tropical forest. Development costs include monitoring systems, community programmes and certification. Revenue is highly sensitive to credit price, which varies significantly by project quality.

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