



Carbon projects explained

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What is Carbon trading?

2 major Markets:

- Official enforced market. Polluting industry, mainly in the EU, are forced to lower their emissions. If they pollute 1 ton CO₂ they have to buy 1 ton CO₂ elsewhere to compensate.
- Voluntary market. In this case industry or companies are not forced to lower their emission but are still interested to wash away their Carbon footprint.

What is Carbon trading?

- **So; if we can store 1 ton CO₂ in our project we can sell this 1 ton to industry or companies either in the enforced or voluntary market.**
- **1 ton CO₂ = 1 Carbon credit.**
- **Carbon credits are sold on official stock markets, or 'over the counter'; direct from project to company.**
- **Who can sell Carbon credits? Anybody that is able to generate them!**

What is Carbon trading?

- **But if you think you can generate them you have to proof that according to international accepted standards. And that is difficult.**
- **What activity can generate Carbon credits?**
 - We can store Carbon (and CO₂) in (old and new) forests, grasslands, agricultural lands, seaweeds or biomass crops.
 - You can also generate Carbon credits with clean energy (wind and solar, biomass burning etc). But that is not part of this presentation. We focus on the forest, agri and sea sector.

What is Carbon trading?

Important term:

Additionality

- We can only claim Carbon storage that is stored in ADDITION to the current situation.
- And only then, if we can proof that the project implementation causes the extra storage.

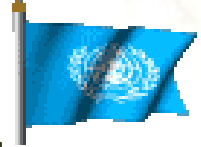
About Carbon standards

International standards

- CDM (international enforced market)(most government)
- VCS (Voluntary market)(most private sector)
- REDD (+) (UN system against deforestation)
- CCB (additional standard with VCS)
- Gold standards (additional standard with VCS)
- The different types of climate and carbon trade marks & systems explained →

About Carbon standards

1. CDM (UNFCCC)(UN)



- Additional carbon stored in new forests or due to better management of existing forests.
- Without your project there was nothing or much less stored.
- Project development with local government.
- Or projects between countries.
- Value of credits is higher than VCS below.
- Only applicable to developing countries.
- Standards and methodologies are available.

About Carbon standards

2. VCS (Voluntary Carbon Standard)



- More or less the same as CDM, but voluntary, mostly between companies.
- Credits are officially registered and approved by certification bodies.
- Applicable worldwide.
- Carbon credits prices about half of CDM.
- Standards and methodologies are available.
- Biggest market in the forest, plantation and sea sector.

About Carbon standards

3. REDD (+) (UN)



- A UN system where **existing forests** are protected and further deforestation is thus **prevented**.
- Prevented deforestation can be re-calculated into carbon credits.
- Only in use for countries (no private businesses)
- There is REDD and REDD+, the difference are some extra components in REDD+.
- For both there is no official standard yet.
- Only applicable to developing countries.

About Carbon standards

4. Climate, Community and Biodiversity Standard (CCBS)(Voluntary)

- Mostly used in combination with CDM or VCS.
- Main target is to increase and protect biodiversity.
- Emission reductions itself have to be verified by CDM or VCS.
- Carbon credit prices higher when added to VCS certificate.



About Carbon standards

5. Gold Standard (Voluntary)

- Target is to improve sustainable development.
- Focusing more on social and economical issues.
- Carbon credit prices higher when added to VCS certificate.



About Carbon standards

How does VCS work? 1

- Prepare yourself to see where missing data gaps are. With checklists.
- Based on project type; select which VCS methodology to use!
- Check if you can use CCBS or Gold standard in addition. > credit price!
- Start using methodology you think suits the project best.
- Establish project boundary; physical as well as project area, type of vegetation etc.
- Quantify and describe the baseline situation. The current carbon storage, risks, leakage etc.
- Quantify and specify the final project “additionality”. What if the project is in place? The project situation.
- The difference between the 2 above, minus buffer pool credits (risk margin), are the carbon credits you may sell.



About Carbon standards

How does VCS work? 2

- Develop the final monitoring & security system.
- Write a Project Design Document (PDD)
- Invite a Certification Body (CB) to check project and read PDD.
- If ok, carbon credits are issued and stored in independent carbon-credit bank account.
- Last implementation efforts are made (security plan etc); + check by CB.
- Carbon credits can be sold to third parties.
- Every year a new check and re-calculation of carbon credits based on present situation (by CB).



About Carbon standards

FAQ's about VCS

How can we be sure that carbon credits are official etc?

Certification body award your credits → to a bank and carbon register.

If I want to start a carbon credit project how long will it take?

1-2 years.

Why should project owners care about security or good management of their forests/agri/sea area etc if carbon credits can be sold every year so easily?

Certification body comes annually to re-calculate.

No carbon-storage simple means no carbon credit sales and thus no income.

About Carbon standards

FAQ's about VCS

Anything can happen to a project. What happens if credits are sold but no carbon is stored because of a fire for example?

- Certification body every year, re-calculate the carbon storage based on last year
- But there is also a risk & buffer pool of credits.
- These are credits that are approved, but cannot be sold.
- Depending on the risks with the project: between 10-50% of the total
- More credits are added to the pool every year as well.

About Carbon standards

FAQ's about VCS

Does FSC on your forest make a difference?

FSC certified = nothing wrong with the management, and thus no additional carbon storage potential at first sight. But there are certainly more options.

- **Longer rotations.**
- **New additional planted forests.**
- **Improved forest management (less roads, reduced damage, more regeneration, smaller or fewer clearcut areas etc. Extra Carbon storage caused by these methods can be stored.**
- **Convert forest from production to protected.**
- **Endangered forests are protected because of the project.**
- **Peat areas. In peat areas much Carbon stored. And released when forest cover is destroyed or harvested. No harvest in peat areas means 'avoided' release (can also be claimed).**
- **Any other avoided release is claimed.**

About Carbon standards

FAQ's about VCS

What risks do I take?

- Work step by step, and the real implementation (last step, the most expensive part) only do when absolutely sure it will work.
- Then the risks are minimal.

If I have VCS can I sell carbon credits to anybody?

- Yes, throughout the world to industry, companies with 'green image', consumers etc etc.
- There are also around 20 'brokers' active that buy and sell VCS credits.

About Carbon standards



Worldwide carbon credit market: how about it?

- In the EU lively VCS trade in carbon credits, through brokers (20 worldwide) or direct 'over the counter' (B2B).
- Also big trade between countries (CDM); in stock exchange.
- Rapidly growing number of companies for compensate their entire emission or like to have a green image .
- In US the same, but no government pressure yet.
- World opinion all about climate and deforestation.
- Not much forest projects yet because of complexity. Wind energy much more simple!
- But people and companies like the forest or sea related credit much more!
- Market will grow rapidly.

About Carbon standards



The financial picture? Income:

- In average income for VCS 25 Euro per ha/year for 30 years. For 5.000 ha that is 125.000 Euro/year. *In sea projects this is different.*
- VCS credits are 5-8 Euro/ carbon credit.
- For adding Gold Standard; add another 5 Euro.
- For adding CCBS; add another 5 Euro.
- For CDM; prices are sometimes double.

Costs.

- Costs to get the Carbon credits; 50-100.000 Euro and 1-2 years of work.
- Annual costs; 5000 Euro for certification body and 700 Euro for VCS (fee/ credit 0,04 cents)

Our project goals

Area B&C;

- Additional storage of 3,5 ton Co₂/year/ha.
- Is *average* over Agricultural crops, soils & new forests.

Area A;

Additional storage of 2250 C₀2/year over 4500 ha (0,5 ton/ha/year).

Thanks !



Thanks