

Carbon markets in the EU and the potential for LATAM

Dr. Norbert Schmitz, Managing Director

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Climate Pal

Certification system for high-quality carbon credits

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GRAS Global Risk Assessment Services

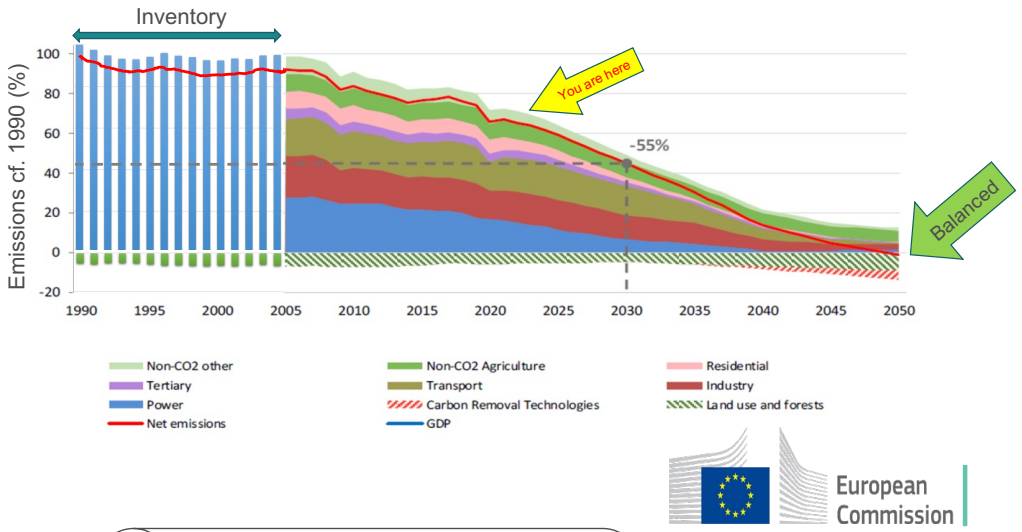
Risk assessments and verifications of Deforestation-free supply chains via remote sensing

The European Green Deal is the basis of the EU Climate Policy

The European Green Deal is a set of policy initiatives by the European Commission with the aim of making the EU climate neutral by 2050 - becoming an economy with Net-Zero emissions.

- The interim goal of the Green Deal – the reduction of GHG emissions by at least 55% by 2030 compared to 1990.
- The Commission presented a “Fit for 55” proposals package to revise climate and energy legislation increasing the reduction targets.
- However, while the Green Deal promotes a drastic reduction of fossil carbon use, the economy will still need carbon as a feedstock for industrial processes.
  - Together with reduction of the fossil carbon, the EU needs to focus on **carbon removal and sequestration** to achieve climate neutrality by 2050.

The land sector has a leading role in meeting the European Green Deal targets



EUROPEAN COMMISSION

Brussels, 15.12.2021
COM(2021) 800 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

Sustainable Carbon Cycles

{SWD(2021) 450 final} - {SWD(2021) 451 final}

The importance of carbon sequestration is recognized at the EU level and a new policy framework is emerging. Recent key developments include:

Scaling of carbon farming

The Communication on Sustainable Carbon Cycles aims at the scaling carbon farming business model to reward farmers for carbon sequestration. As a result of this strategy, carbon farming should contribute 42 Mt of CO_2 sequestrated by 2030.

Introduction of EU Certification of carbon removals

This initiative proposes rules on certifying carbon removals, including monitoring, reporting and verification. The aim is to expand carbon removals and encourage the use of innovative solutions to capture and store CO_2.

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Carbon offsetting - main policy instrument to combat climate change

1 carbon credit = 1 ton of mitigated CO_2 eq emissions

Latin America has a great potential for offsetting projects development on VCM

Carbon Markets - Compliance and Voluntary offsetting mechanisms

Compliance Carbon Market (CCM)

CCM was established by the Kyoto Protocol's Clean Development Mechanism (CDM).

Credits are generated under strict international regulations and are mainly consumed by governments to meet their obligations.

Voluntary Carbon Market (VCM)

Carbon credits on VCM are generated by offsetting projects which should be certified under an **international offsetting Standard.**

VCM has expanded steadily in recent years and it is expected to further scale up.

Examples of activities that generate carbon credits on VCM

Nature-based

- Soil erosion control
- Agroforestry
- Increase forest cover of non-forest land through agroforestry systems
- Planting trees
- Native forest restoration
- Forest management
- Blue Carbon (mangroves restoration)

Tech-based

- Methane capture from Palm Oil wastewater
- Renewable energy
- Energy efficiency
- Landfill methane capture
- Mining methane capture

Credits from Agriculture and Forestry projects have a high demand on VCM

Data for 2021

Project Type	Volume (MtCO2e)	Change of Volume from prior year(%)	Average price per ton/credit (USD)	Total value for sold Volume (USD)
Forestry and land use	**115**	**139.4 %**	**$4.73**	**$544M**
Agriculture	**3.4**	**876.8 %**	**$1.36**	**$4.6M**
Renewable Energy	80.0	-0.3 %	$1.1	$88.4M
Energy Efficiency	16.1	-48.9 %	$1.57	$24.2M
Transportation	2.1	99.3 %	$1	$2.1M
Waste Disposal	2.7	-67.5%	$3.93	$10.6M
Chemical Processes/Manufacturing	1.1	-11.2%	$3.22	$3.5M

Source: Ecosystem Marketplace - State of the Voluntary Carbon Markets 2021

ClimatePal – Transparent and reliable Standard on Voluntary Carbon Market

Special focus

- Contribution to Sustainable Development Goals
- Ecosystem services provision
- Biodiversity conservation
- Positive impact on local communities

Our added value

- Transparency and easy application
- Quick and straightforward certification procedure
- Comprehensive monitoring, reporting and verification (MRV)
- Continuous improvement

ClimatePal is a unique system that combines certification of high-quality carbon credits with smart tracking of project steps, and user-friendly and quick certification process

ClimatePal certifies only carbon credits that fulfill Basic requirements and Specific criteria

Basic requirements

- Additionality
- Permanence
- No Double-counting
- No Leakage
- Verifiability

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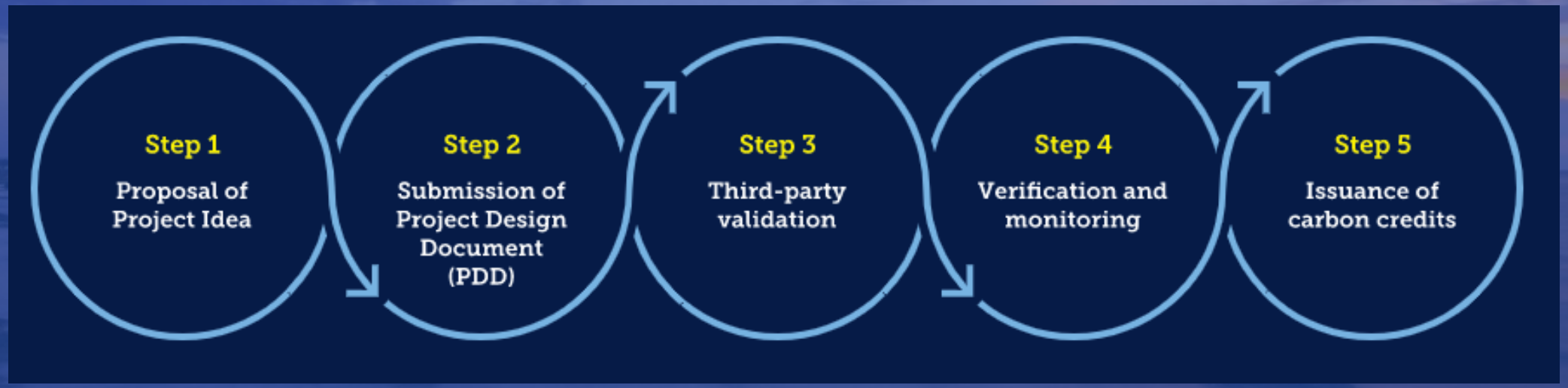
ClimatePal specific criteria

- Contribution to SDG
- Provision of Ecosystem Services
- Enhancing Biodiversity
- Positive Social Impact
- Do no net-harm

The certification process under ClimatePal is easy, quick and user-friendly

Certification steps



To get the projects certified, project developers undertake 5 easy steps

Examples

Nature-based pilot projects (I)

Soil carbon accumulation in agriculture

These projects aim at permanently removing carbon and storing it in agricultural soils, through the implementation of advanced agricultural management practices focusing on the enhancement of soil health.

SDGs

Biochar carbon sequestration

These projects aim at using biochar as soil amendment restoring soil carbon content and mitigating climate change. Biochar is a carbon-rich material made from biomass under high temperatures and limited oxygen content.

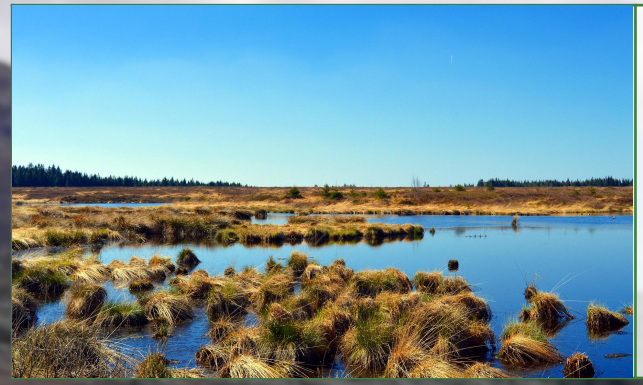
SDGs

Restoration of forest ecosystem services

Forests are well known for their carbon storage capacity. These projects focus on the restoration of degraded or overexploited forests to ultimately restore ecosystem services, increase carbon storage and the well-being of local communities.

SDGs

Nature-based pilot projects (II)



Rewetting of peatlands

These projects aim to the protection and restoration of peatlands through rewetting. Peatlands are one of the largest natural terrestrial carbon sinks which a great potential for climate change mitigation, biodiversity conservation and provision of clean water.

SDGs

Blue carbon - Mangrove restoration

These projects aim at improving coastal ecosystems conditions to increase carbon storage potential. Mangroves provide critical ecosystem services to the local communities such as fish and timber production, clean water supply, and tourism. At the same time, mangroves remove CO2 from the atmosphere.

SDGs

Technology-based pilot projects

Installation of Solar Panels in Zambia, Tanzania and Nepal

These projects aim at providing renewable electricity to public buildings and health care structures (like hospitals) in remote areas of underdeveloped countries.

SDGs

Methane capture from palm oil wastewater

The primary aim of those projects is to capture methane and utilize the gas as fuel for generating electricity. The projects will also introduce a more efficient and controlled treatment of the palm oil mill effluent.

SDGs

Carbon Capture and Storage

These projects aim at capturing and storing carbon within the constructional building blocks by up-taking the CO2 during the concrete curing process.

SDGs

Carbon Offsetting Projects' categories	Examples	Price range per t/CO2e (USD)	Average price per t/CO2e (USD)
Agriculture, forestry and land use (AFOLU)	Afforestation of a metropolitan area	-	7,69
	Reforestation	-	
	Rainforest conservation measures , improved	2 - 17,5	9.5
	REDD	0,5 - >20	4.2
	Agroforestry	9 - 11.	9,9
	Increase of carbon stock in forest, tree planting	2,5 - > 20	7,5
Livestock, enteric fermentation, and manure management	Introduction of new composting techiques (e.g.	4 - >20	7
	Reduction of methane emission from enteric fermentation in dairy farms		
	Reduction of emissions in livestock farms		
Energy	Installation of wind power plants (i.e. wind	<0,5 - 20	1,43
	Installation of hydro power plants - run of river	<0,5 - 8,5	1,71
	Installation of hydro power plants - large hydro	0,5 - 19	3,1
	Installation of geothermal heating systems	2,5 - 8	4
	Biomass (from electricity projects) / Biochar	0,5 - >20	2
	Solar power projects	1 - 10.	2,21
Energy efficiency	Adoption of improved cookstove in indigenous communuties in developing countries	2 - >20	3,54
	Replacement of existing luminaires with LED		
	Clean water / Purification	2 - 9.	5.5
	Fuel switching	4 - >20	11,4
	Energy efficiency - industrial focused	<0,5 - 20	4,1
	Energy efficiency - community focused	3,5 - >20	9,4
Wastewater treatment (Biogas recovery)	Wastewater treatment with biogass system in	1 - >20	5,9
	Wastewater treatment for methane capture in		
Landfill Gas / Landfill methane	Landfill Gas power generation projects	< 0,5 - 19	2,16
	Landfill Gas flaring projects		
	Landfill Gas combustion projects		
Transport	Promotion of electric vehicles	2 - 6,5	2,9
	Installation of fuel pipeline for transport		
	Public transport enhancement projects		
Manufacturing industries	Emission reduction in cement manufacturing	-	1,9
	Fuel switching at manufacturing plant	-	
	Natural gas pipeline extension in cement plant	-	
Chemical industry	Catalytic reduction of N2O emissions inside	-	
	N20 emission reduction projects	-	
	Chemical recovery projects	-	
Mining/mineral production	Utilization of Coal-Mine-Methane	-	-
	Coal-Minn-Methane capture	-	-
Other	Waste heat recovery	0,5 - 7,7	3,5

Factors affecting prices of carbon credits

- **Supply&Demand**
- **Co/benefit**
- **Additionality**
- **Size of the project**
- **Location of the project**
- **The availability of credits from a particular country**
- **Organisation's objectives**
- **Project vintage**
- **Quality of the project**
- **Amount of credits purchased**
- **Communication assets** (e.g. clear project details and professional project photography).

The price of a carbon credit depends on **many factors.**
Prices can range from under **$1/tCO2e** for older projects with fewer verifiable co-benefits, to over **$20/tCO2e** for projects with **unique features and specific co- benefits**, such as biodiversity and support for indigenous people.

Benefits for our clients to certify projects under the ClimatePal Standard

ClimatePal

Reliable offsetting standard

Offsetting project certification →

← Generated carbon credits to sell

Farmers and foresters

- The straightforwardness of certification procedure
- Support by ClimatePal at each certification step
- Possibility to track project status in ClimatePal Registry
- Obtainment of high-quality carbon credits that bring environmental and social co-benefits
- Full transparency of carbon credits issuance flow
- Support by ClimatePal in marketing and selling of generated carbon credits

Do you have a project idea to be certified?
Contact us!

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We are looking forward to hearing about your project ideas!

Dr. Norbert Schmitz. Email: schmitz@iscc-system.org
ClimatePal Services GmbH. Email: info@ClimatePal.org
Hohenzollernring 72, 50672 Cologne