Climate Finance & Carbon Credits

ecosostenibile.eu®

eCO2®

Sommario

1. BIO

ecosostenibile.eu® Benefit Company, is the innovative ESGtech startup that accelerates the transition towards a low-carbon & high-circular economy by creating analysis methodologies of the main metrics based on international standards (IE Carbon footprint, Carbon Credits, Circular Economy) in SaaS mode with eCO2®: the only platform that allows companies to achieve ESG objectives, measuring sustainability, fulfilling compliance (IE CSRD, SFDR) with an ALL-IN-1 approach.

eCO2® automates data collection directly from company ERP via API gateway and has available a BigData of 12,000 DataPoints/year per customer, a benchmarker for ESG certified reporting to each market sector, necessary for machine learning algorithms and predictive models of AI behind our dashboards. eCO2® is able to measure and certify (by Third Party) carbon footprint, circular economy, energy efficiency, carbon credit, ETS and every ESG KPI in the company; manages the governance and reporting of each ESG strategic process by planning and controlling through completely custom dashboards and simulation models, guaranteeing immediate savings and absolute service levels.

ecosostenibile.eu® closed a pre-seed round with **CDP** and **Invitalia** and were accelerated by **ZERO** (Repubblica greenandblue.it); ecosostenibile.eu® is also a privileged **H&D** partner and have been selected by InnovIT, the center for Italian innovation in Silicon Valley.

1.1. Note about the author

Mr Corrado Clini is Former Minister for the Environment of the Italian Republic, has been +25years Director General "Sustainable Development, Climate Change and Energy" for the same Ministry; ENEA Board of Directors, Regional Environmental Center President, EU Environmental Agency Bureau Member and also President of the ecosostenibile.eu® Scientific Committee.

2. Climate Finance

Enabling climate finance through carbon credits involves using financial instruments to incentivize and support projects that reduce greenhouse gas emissions or absorb carbon from the atmosphere. Carbon credits are a key tool in this context and can be generated from emission reduction projects such as renewable energy production, energy efficiency, reforestation, forest protection, and many others.

Here are some key steps to enable climate finance through carbon credits:

- **Carbon Credit Markets**: Carbon credit markets allow businesses and countries to purchase carbon credits to offset their greenhouse gas emissions. This creates economic incentives to invest in projects that reduce emissions.

- **Certification Standards**: Clear and reliable standards are needed for carbon credit certification to ensure that projects are verifiable and that emission reductions are real and measurable.
- **Initial Financing**: Often, projects that lead to emissions reductions or carbon sequestration require significant upfront investments. Climate finance can be used to provide this initial financing, making projects more attractive to investors.
- **Tax Incentives and Public Policies**: Public policies that encourage emissions reduction and the use of carbon credits can be critical. Tax incentives, for example, can make investments in emission reduction projects more attractive.
- **Transparency and Monitoring**: Ensuring transparency and ongoing monitoring of projects that generate carbon credits is essential to maintaining the integrity of the system and the credibility of the credits themselves.
- **Public-Private Partnerships**: Collaboration between the public and private sectors can be crucial for implementing emission reduction projects and ensuring that climate finance is directed to areas that need it most.

In summary, enabling climate finance through carbon credits requires a combination of well-structured markets, clear standards, initial financing, favorable public policies, and collaboration among different stakeholders.

3. Carbon Credits

The carbon credits have been issued by the United Nations Convention on Climate Change (UNFCCC) with the aim of offsetting greenhouse gas emissions from developed countries or businesses through credits generated in developing countries by natural carbon sinks to absorb atmospheric CO_2 (forests, lagoons, soils...) and/or by the reduction of emissions through energy saving projects and the replacement of fossil fuels with renewable sources.

The carbon credits (Certified Emission Reductions- CERs) can be purchased on the *UN Carbon Offset Platform*, an e-commerce platform where a company, an organization or a regular citizen can purchase units to compensate for greenhouse gas emissions or simply support action on climate.

Selling of carbon credits is one of the tools to finance investments by developing countries to tackle climate change, as provided for in the art. 6.4 of the Paris Agreement. The third session of the meeting of the Parties to the Paris Agreement adopted the reference framework of the rules, methods and procedures to regulate the carbon credit mechanism (decision CMA/3), taken up in the context of the Glasgow Climate Pact. Nevertheless, the process for regulating the production and sale of CERs has not been completed and COP 28 has effectively postponed any decision to COP 29.

In this context, it could be a key step towards decarbonization to carry out a pilot project for testing and modeling for generating CERs through the reduction of carbon emissions in one of the most critical sectors of economic growth in developing

countries. The International Energy Agency estimates that the operations of buildings account for 30% of global final energy consumption and 26% of global energy-related emissions: 8% being direct emissions, (energy in buildings used for construction) and 18% indirect emissions from the production of electricity, cooling and heating, lighting, internet, installed and used.

Global energy consumption is growing quickly, especially in developing countries associated with economic growth. Both due to the increase in volumes built for homes or businesses, and due to the growth in the use of air conditioning, household appliances, internet services, as well as lighting systems. The infrastructures and the appliances will have a lifespan of at least 30-40 years, and consequently, the consumption structure will be "calibrated" to current standards for a long time.

IEA predicts that building energy consumption in ASEAN countries (Brunei, Darussalam, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam) will grow by around 60% by 2030 and by 120% by 2040. The growth in demand, in addition to causing high tensions in energy markets, will have the direct effect of increasing emissions of CO_2 and other greenhouse gases.

4. COP29 Pilot Project

Reducing energy consumption and supplying renewables in buildings in developing countries is a key step in the transition towards decarbonization of the global economy and in this perspective, a pilot project for the widespread emissions reduction of the construction sector and domestic energy consumption in developing countries would certainly be a better legacy from the next COP29.

The two main ways to "drive" the eco-efficiency of the building sector in developing economies concern:

- on the "side" of construction companies, projects (eco-design), materials, electricity supply, service infrastructures (electrical systems, fiber optics….);
- on the "consumption side" the "internal" lighting systems, household appliances, heating and cooling, internet services…

Metering the reduction in energy consumption of a building must include both the construction companies and the consumer "sides" (homes and businesses).

The eco-efficiency of the building sector in developing countries can be promoted, within the scope of Art. 6.4 of the Paris Agreement, through the recognition of Carbon Credits (CERs) to companies and consumers who reduce energy consumption compared to the “baseline” of their country. Three conditions are necessary for the generation of carbon credits:

- the calculation of the “country baseline”;
- measurement of energy savings;

- the certification by a Third Party of the carbon credits corresponding to energy savings.

The CERs can be attributed to the construction company, or to the building manager, on the basis of an analysis of the measured effects (metering) in terms of reduction in energy consumption of the entire construction and management chain of the building over a period of time (20 years?).

The pilot project is aimed at developing and testing a methodology for evaluating the CERs generated by eco-efficient buildings. For this purpose, at least 10 pilot areas will be identified in Asia, the Middle East, Africa, Central America, Latin America, corresponding to urban areas and rural areas.

The pilot project will be financed by donor countries and companies. The management of the project will be entrusted to a committee of experts, nominated by the donors and beneficiary countries, which will be based at the UNFCC secretariat.

The platform for the collection and sale of CERs will be the **UN Carbon Offset Platform** and the CERs will be included among the **UNFCC-certified climate-friendly projects.**