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25 Degrees in Africa - CDM

Carbon markets glossary

For the guidance of our readers, here is a glossary of terms, abbreviations and acronyms used in the climate change debate, carbon trading markets and the Kyoto Protocol.

The glossary has been modified by Andrew Gilder of IMBEWU Enviro-Legal Specialists (Pty) Ltd, to give a sense of the application of certain of the terminology in the South African context or to broaden the definition provided (andrew@imbewu.co.za and www.imbewu.co.za)

AAUs

Assigned Amount Units. Allowances for carbon emissions under the Kyoto Protocol's emission trading mechanism. Each unit equates to one tonne of CO₂. The AAU budgets for Annex I countries during the first commitment period are currently being clarified.

Annex I, or Annex B

The signatory nations to the Kyoto Protocol that are subject to caps on their emissions of greenhouse gases and committed to reduction targets – countries with developed economies. Annex I refers to the 36 countries identified for reduction in the UNFCCC while the Annex B is an adjusted list of 39 countries identified under the more recent Kyoto Protocol. Annex B countries have their reduction targets formally stated. South Africa is neither Annex I nor Annex B.

Annex II

A subset of Annex 1/B, Annex II countries is signatory nations to the UNFCCC which are also members of the OECD - the most industrialised economies. They have extra obligations to help developing nations combat climate change via technology transfer and financial help.

Asia-Pacific Partnership on Clean Development and Climate (AP6)

The Asia-Pacific climate pact is a rival international climate change agreement to the Kyoto Protocol. Its initiators are the United States and Australia, the only two industrialised nations not to have ratified the Kyoto treaty. The group also includes China, India, Japan and South Korea. AP6 rejects Kyoto-style emission reduction targets in favour of encouraging business to invest in clean fossil fuel technology and renewable energy. Working Groups have been established to deal with the areas of: Cleaner Fossil Energy, Renewable Energy, Distributed Generation, Power Generation & Transmissions, Steel, Cement, Coal Mining, Buildings and Appliances and Aluminium. Other sectors, such as transport, may be included in the future.

Baseline and credit

A type of emissions trading scheme where firms are encouraged to reduce their greenhouse gas emissions below a projected 'business as usual' path of increasing emissions. Any reductions below that future path earn credits for the difference between the 'business as usual' path and the actual level of emissions. These credits may be sold to other emitters struggling to contain increases to their projected levels of emissions, and may be used by such emitters to offset emissions that may be in excess of their own 'business as usual' paths.

Biofuels

Biofuels is fuel made from a renewable source, e.g., plants. They are used to supplement or replace fossil fuels, e.g., petroleum and diesel, used for transport. The two main biofuels are ethanol and biodiesel.

Cap and trade

The most popular type of emissions trading scheme. A company's emissions are subject to a cap, permits are issued or auctioned representing emissions up to the level of the cap, and a commodities market permits those emitting less than their cap to sell their excess permits to emitters needing to buy extra to comply with their cap.

Carbon neutral

An individual, event, activity, family or organisation that is responsible for no net emissions of greenhouse gases from all its activities is considered 'carbon neutral'. Typically this achieved by cutting minimum; any necessary emissions are then offset by emission-reducing activities elsewhere. Buying accredited clean electricity helps cut household or office greenhouse emissions, while investing in sustainable energy projects or afforestation schemes are examples of offsets. The 2006 Soccer World Cup in Germany sought to be a carbon neutral event, and there are similar plans for the Olympic Games in London (2012). South Africa has the same opportunity to make the 2010 Soccer World Cup carbon neutral.

Carbon positive

An individual, event, activity, family or organisation that is responsible for taking more greenhouse gases out of the atmosphere than it emits is said to be 'carbon positive'. This requires paying for activities such as forest planting or investing in renewable energy.

CDM

Clean Development Mechanism. A project-based mechanism established by Article 12 of the Kyoto Protocol in terms of which projects may be implemented in developing countries to reduce atmospheric carbon, assist in achieving sustainable development in the host country, and generate tradable carbon credits called CERs.

CERs

Certified Emission Reductions are the carbon credit generated by the CDM project. One CER equates to an emission reduction of one tonne of CO₂. Holders of CERs are entitled to use them to offset their own greenhouse gas emissions to supplement other actions taken aimed at achieving compliance with their Kyoto or EU ETS emissions reduction target.

EITs

Economies in Transition. Those nations in Annex I of the Kyoto Protocol considered developed but currently in transition to a market economy. Generally the nations are former republics of the old Soviet bloc.

Emissions trading

A market-based system for regulating the emission of greenhouse gases established by Article 17 of the Kyoto Protocol. The quantity of greenhouse gas emissions that an installation may emit is specified, tradable permits, representing the right to emit the specified quantity of greenhouse gas, are issued to the installation, and the price of the permits is permitted to fluctuate according to supply and demand in an open commodities market.

ERUs

Emission Reduction Units. Tradable credits generated from project-based activities to reduce greenhouse emissions in other Annex I countries, typically those in the former Soviet-bloc, under the Kyoto Protocol's Joint Implementation (JI) mechanism.

ETS

Emissions Trading Scheme.

EUA

European Union Allowances. Tradable emission (carbon) credits within the European Union Emissions Trading Scheme. Each allowance carries the right to emit one tonne of carbon dioxide. EUA are "linked" to CERs in the sense that mechanisms are being established that will allow CERs to be sold into the EU ETS and to be transformed into an EUA. The EU ETS thus represents a possible market for CERs generated in South Africa.

GHG

Greenhouse gases. The three most important gases are carbon dioxide (CO₂) – the biggest contributor to global warming; methane (CH₄) – for example, from decomposing landfill and flatulent cattle; and nitrous oxide (N₂O) – from vehicle exhaust fumes. The Kyoto Protocol deals with a 'basket' of six greenhouse gasses: the three abovementioned and hydrofluorocarbons (HFCs); perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆)

GWP

Global warming potential. This refers to the potency of greenhouse gases, i.e., their ability to trap heat in the atmosphere over a given time horizon. The GWP is a numerical measure relative to carbon dioxide, the most abundant greenhouse gas. So carbon dioxide itself has a GWP of 1 while methane's GWP is 23.

IPCC

Intergovernmental Panel on Climate Change. An international scientific panel charged with informing the UNFCCC with the latest scientific evidence on climate change. With representatives from 130 nations it is the world's pre-eminent scientific advisory body on global warming. The IPCC's Fourth Assessment Report (AR4) has recently been released, see: www.ipcc.ch

JI

Joint Implementation. A project-based mechanism, established in terms of the Kyoto Protocol which allows developed countries, particularly those in transition to a market economy, to host greenhouse gas emissions reducing projects funded by another developed country. In theory the arrangement sees the carbon credits generated by a JI project, called ERUs, going to the investor country while the emission allowances (AAUs) of the host country are reduced by the same amount.

LULUCF

Land use, land use change and forestry. The term given to activities that seek to create 'sinks' for greenhouse gasses, e.g., tree-planting projects, reforestation and afforestation which utilize the potential that trees have to absorb carbon from the atmosphere. South Africa is currently moving towards the implementation of such projects.

NAPs

National Allocation Plans. These set out the overall emissions cap for countries in the EU Emissions Trading Scheme, and the allowances that each sector, five in all, and individual installations, in excess of twelve thousand, within each country receives.

PDD

Project Design Document. The official application drawn up by an entity applying for project approval under the Clean Development Mechanism (CDM). PDDs must be validated by an independent third party, then approved by the host country and registered by the CDM Executive Board before a project qualifies as a CER carbon credit earner.

RMUs

Removal Units. Credits earned from land use, land-use change and forestry projects (LULUCF) in industrialised countries, including such projects under the Kyoto Protocol's JI mechanism.

tCO₂e, MtCO₂e

Tonnes of carbon dioxide equivalent, and millions of tonnes of carbon dioxide equivalent. This is the metric measurement unit for greenhouse emissions. The global warming impact of all greenhouse gases is measured in terms of equivalency to the impact of carbon dioxide (CO₂). For example, one million tonnes of methane, a far more potent greenhouse gas than carbon dioxide, is measured as 23 million tonnes of CO₂ equivalent, or 23 MtCO₂e.

UNFCCC

The United Nations Framework Convention on Climate Change, also referred to more informally as the UN climate change convention. It is the international agreement for action on climate change and was drawn up in 1992. A framework was agreed for action aimed at stabilising atmospheric concentrations of greenhouse gases. The UNFCCC came into force on March 1994 and currently has 189 signatory parties. The Conference of the Parties of the UNFCCC, in turn, agreed the Kyoto Protocol in 1997 to implement emission reductions in industrialised countries. The Kyoto Protocol came into operation on 16 February 2005.

VERs

Verified Emission Reductions. Tradable credits for greenhouse emission reduction activities generated to meet voluntary demand for carbon credits by organisations and individuals wanting to offset their own emissions.

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