

Summary of Existing Rules For Generating Emission Reductions From Land Conservation and Management Projects

Program	Program Type	Land use project eligibility	Geographic Coverage	Any limits to the types of project emission reductions?	Review / certification process	Measurement and Monitoring	Additionality	Baselines	Leakage	Permanence	Project start date and crediting period	Public participation	Co-benefits and preventing negative impacts	Payment schedule for carbon
The Clean Development Mechanism (CDM) http://cdm.unfccc.int/	Offsets program under the Kyoto Protocol. Developed countries can meet a portion of their emission reduction targets using certified emission reductions (CERs) from projects in developing countries. Similar rules exist for energy projects.	Afforestation and reforestation projects.	Projects can occur in developing countries participating in the Kyoto Protocol.	The amount of land-use credits used by developed countries to meet their emission reduction targets can not exceed 1% annually of their base year (usually 1990) emissions.	Project design documents must be "validated" by a third party prior to project registration. In addition, project emission reductions must be "verified" by a third party prior to "certification" by the CDM Executive Board (EB). Third party reviews must be accredited by the CDM EB	Projects must have a detailed monitoring plan that is appropriate to the project activity, reflects good practice and takes into account potential carbon measurement uncertainties. Projects can select a monitoring method that has been approved by the CDM EB, or submit new methods for approval. All carbon pools must be measured, accept those for which the project provides evidence that emissions will not increase.	A project is additional if net greenhouse gas removals are increased above net changes in carbon stocks that would have occurred in the absence of the project.	The baseline scenario must reasonably represent the sum of changes in carbon stocks that would have occurred without the project. Projects must use a baseline method that has been approved by the Executive Board, or submit a new method for approval. Projects must use one of the following baseline approaches: 1) existing or historical changes in land use and carbon stocks; 2) economically attractive land use, taking into account barriers; or 3) most likely land use at the start of the project	Leakage is defined as an increase in greenhouse gas (GHG) emissions outside the CDM project's boundary, which is measurable and attributable to the CDM project. Projects must be designed to minimize leakage, identify all potential sources of leakage and monitor for leakage during the crediting period.	The CDM allows projects to generate credits for up to 60 years, subject to verification and certification of continued carbon storage every 5 years. Two types of credits are allowed: 1) Temporary CERs (tCERs) expire after a maximum of 10 years, but can be re-issued if the seller verifies continued carbon storage; and 2) Long-term CERs (lCER) verified and certified every 5 years, but do not expire until the end of the crediting period. Expired tCERs and lCERs must be replaced.	Projects must begin after 2001 (for use during the 2008-2012 compliance period). The crediting period can be either a maximum of 20 years, w/ two renewals (i.e., up to 60 years) OR a maximum of 30 years, with no renewal.	Projects must invite and summarize comments by local stakeholders, and report how comments were taken into account. Stakeholders, participating governments and UNFCCC accredited NGOs have 45 days to comment on project design validation reports prepared by the third party reviewer.	Projects must assess the socio-economic and environmental impacts, including impacts on biodiversity and natural ecosystems. If negative impacts are significant, projects must complete a socio-economic impact and/or environmental impact assessment according to host country laws, develop remedial and monitoring plans, and monitor potential impacts. To avoid creating incentives to cut down native forests to reforest for carbon credit, reforestation projects can only occur on land that has been degraded or unreforested since December 31, 1989.	Depends on the contract between buyer and seller.
The California Climate Action Registry (CCAR) http://www.climateregistry.org ; contact Diane Wittenberg, President	Voluntary registry for companies to report their annual emissions. Forest entities who report their emissions can also register emission reductions from forest projects.	Conservation, forest management, and reforestation projects. Other project types may be considered in the future.	Forest projects in California	NA	Third party certification of project emission reductions is required in years 1, 5, 6, 10, etc. Projects must change certifiers every 5 years. Project developers may submit to the Registry a project description for pre-screening to be sure it meets the eligibility criteria prior to implementation.	Stock change accounting is required. Direct sampling and measurement required every 10 years. 100% of a property must be directly sampled over a 10 year period. Estimates of carbon benefits must be discounted for uncertainty. Sliding scale discount is applied, with greater discount applied to estimates with lower confidence levels and lower discounts applied to estimates with higher confidence levels.	Forest management --project must exceed requirements in the California Forest Practice Rules, Option C (rules on growth / harvest balance) and must not be required by mandatory law. Forest conservation --project must not be required by mandatory law and project activity must exceed baseline activity. Reforestation --project must not be required by mandatory law, and must occur on lands that have been out of forest cover for a minimum of 10 years.	Forest management --Must be consistent with the CA Forest Practice Rules, Option C. Forest Conservation --can reflect either a site-specific immediate threat or county conversion trends. Reforestation --baseline must reflect the practices (or lack thereof) that has kept area out of forest cover.	On site activity shifting leakage must be quantified and deducted from GHG calculation. Off-site activity shifting leakage must be qualitatively assessed annually. Market leakage assessment is strongly encouraged. The CA registry will develop tools to quantify market leakage (e.g., lookup tables with leakage discount rates) and off-site activity-shifting leakage within the next 3 years.	Permanent conservation easement required to guarantee maintenance of carbon benefit claimed by the project. Annual reporting and regular monitoring allows for ongoing tracking and verification of project carbon benefits over time.	Up to 2008, projects can start as early as 1990. Beyond 2008, start date must be some subsequent year. No restrictions on crediting period as Registry does not provide credits.	Project documents and carbon accounting are posted on Registry website for public review	Projects must promote and maintain native species; forest management must be "natural forest management," and project area must be secured with permanent conservation easement consistent with the preservation of open space and protection of relatively natural habitat.	NA

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<p>The Chicago Climate Exchange (CCX), www.chicagoclimatex.com; contact Richard Sandor, CEO</p>	<p>Voluntary emissions trading program initiated by the private sector</p>	<p>Reforestation, forest conservation, tillage and grass cover planting.</p>	<p>Reforestation in U.S., Canada, Brazil, and Mexico. Forest conservation in specified states in Brazil and Mexico. Conservation tillage in designated states, counties, and parishes in the Midwest and Mississippi delta regions of the U.S. Grass cover planting on agricultural lands in eligible counties in Colorado, Kansas and Nebraska.</p>	<p>Can only reduce emissions by 0.5% in first year by use of offsets. The use of offsets can only increase by 0.5% per year to no more than 5% of the total 4-year emission reduction.</p>	<p>Project proposals and carbon offsets must be reviewed and verified by third parties approved by the CCX. For conservation tillage and grass cover planting projects, CCX verifiers must conduct in-field inspections.</p>	<p>Large reforestation projects must quantify carbon benefits using a combination of standard growth coefficients and direct measurement by a CCX-approved verifier applying a CCX-recognized method. Small and medium reforestation projects can use direct measurement or CCX approved lookup tables. Offsets will be discounted to reflect the lower bound of confidence interval (confidence interval not yet set). Forest conservation offsets are equal to the amount of carbon lost under BAU deforestation trends (discounted by 10%). Forest conservation offsets cannot exceed the offsets issued for the reforestation component of the same project.</p> <p>Agricultural soil carbon sequestration projects must use the default accumulation rates of 0.5 metric tons of CO2 per acre per year for continuous conservation tillage and 0.75 metric tons of CO2 per acre per year for grass cover plantings.</p>	<p>The project must reduce emissions or increase carbon sequestration beyond what was occurring on the project site prior to the project's inception.</p>	<p>The baseline must reflect carbon stocks on the project site at the project's inception. For large reforestation projects, the baseline must be quantified through direct measurement by a CCX-approved verifier.</p>	<p>Forest conservation must be undertaken in conjunction with reforestation on contiguous sites. For forest management project owners who are in the commercial forestry sector must use the carbon-stable accounting approach, and confirm that there will be no net decrease in overall carbon stocks in their commercial forestry inventory between 2003-2006. For projects in the U.S. and Canada, these CCX members must demonstrate that their forest holdings outside the project are sustainably managed. Project owners not in the commercial forestry sector must provide evidence that the forest carbon stocks outside of the project boundary are sustainably managed and will not be converted to non-forest uses. Leakage rules for projects in Brazil and Mexico will be developed. No leakage rules have been specified for cropland management activities.</p>	<p>Project owners must sign a statement indicating that the primary purpose of the project is long-term carbon storage and provide evidence that forest parcels are under legal protection status if applicable. 20% of the offsets must be placed in a forest carbon reserve pool. Projects in the U.S. and Canada must be placed in protective status via: i) establishment of long-term conservation easement; ii) transfer of land parcels to a land trust, NGO, or government agency; or iii) other means approved by CCX.</p> <p>For agricultural soil carbon sequestration projects, 20% of offsets must be in soil carbon reserve pool. Maintenance of soil carbon sequestering activities after 2006 is not required.</p>	<p>For increases and avoided losses realized during the 2003-2006 period. Reforestation projects must be initiated on or after January 1, 1990. Certain projects that were undertaken between January 1, 1995 and December 31, 1998 and were sponsored by CCX members may qualify for early action credits (qualifying increases and losses can be realized before the 2003-2006 period).</p> <p>Land managers that commit to use or continue to use continuous till on land through 2006 can enroll lands. Projects involving grass cover planting that was undertaken on or after January 1, 1999 are eligible.</p>	<p>not addressed</p>	<p>To avoid creating incentives to cut down native forests to reforest for carbon credit, reforestation projects can only occur on land that has been degraded or unreforested since December 31, 1989.</p>	<p>NA</p>
<p>Climate Community and Biodiversity (CCB) Standards, www.climate-standards.org, contact John Niles, j.niles@celb.org</p>	<p>Voluntary standards to ensure positive climate, community and biodiversity impacts for land conservation and management projects. Projects must meet fifteen requirements which are spread across climate, community, biodiversity categories and a general/cross-cutting category to achieve "approval" from the CCB. Silver status will be awarded to projects that get approval, plus one extra point from three of the different sections. Gold status will be awarded to projects that get approval and score a min. of six points, with at least one point from each of the four sections.</p>	<p>All land conservation and management projects that reduce emissions of carbon dioxide or other GHG or sequester carbon.</p>	<p>Global</p>	<p>NA</p>	<p>The CCB standards rely on informed and impartial third-party evaluators to determine if a project merits approval, or silver or gold status.</p>	<p>To achieve CCB approval the project proponents must have an initial monitoring plan in place to quantify and document changes in project-related carbon pools, and non-CO2 GHG emissions if appropriate (within and outside the project boundaries). Pools to monitor must include any pools expected to decrease as a result of project activities.</p>	<p>Using the methodologies of the IPCC or any CDM Executive Board approved methodology the net changes in carbon stocks due to project activities must be estimated. The net change is equal to carbon stock changes <i>with</i> the project minus carbon stock changes <i>without</i> the project. The projection of the "without-project" will be based on a description of the most likely land-use scenarios in the absence of the project, identifying whether the scenario assumes that existing laws or regulations would have required that project activities be undertaken anyway. The project must demonstrate net positive impacts with the project boundaries and over the project lifetime to get CCB "approval".</p>	<p>The project proponents must develop a defensible and well-documented "without-project" future land-use scenario and baseline projection. This includes a description of the most likely land-use scenario in the absence of the project and a projection of future carbon stock changes in the absence of the project based on the land-use scenario described above. A description of how the "without-project" baseline would affect local communities, biodiversity and water and soil resources in the project area must be made.</p>	<p>The project must 1) estimate potential offset decreases in carbon stocks (increases in emissions or decreases in sequestration) due to project activities, 2) document how negative offsite impacts resulting from project activities will be mitigated, and estimate the extent to which such impacts will be reduced, and 3) subtract any likely project-related unmitigated negative offsite climate impacts from the climate benefits being claimed by the project. The total net effect, equal to the net increase in onsite carbon stocks minus offsite climate impacts, must be positive. Project proponents must also quantify and mitigate likely negative social, economic and biodiversity offsite impacts and justify that the net impacts of the projects in these three spheres is positive.</p>	<p>Project proponents must identify likely risks to climate, community and biodiversity benefits during the project lifetime, and outline measures that the project plans to undertake to mitigate these risks.</p>	<p>CCB approval requires that if the project occurs in an area with significant local stakeholders that the project must engage a diversity of stakeholders, including appropriate sub-groups, underrepresented groups and women living in the project vicinity. Stakeholders in the project's area of influence must have an opportunity before the project design is finalized to raise concerns about potential negative impacts, express desired outcomes and provide input on the project design. Project developers must document stakeholder dialogues and indicate if and how the project proposal was revised based on such input.</p>	<p>To achieve CCB approval projects must generate net positive impacts on the social and economic wellbeing of communities and on biodiversity within the project boundaries. In addition points can be earned towards silver and gold CCB status by: 1) including significant capacity building (training, skill building etc) for communities, 2) designing the project using best practices in community involvement, 3) using only native species, and 4) performing water and soil resource enhancement.</p>	<p>NA</p>	

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Oregon Climate Trust	OR legislation requires new power plants to offset its emissions by approximately 17%. The law can be met by paying a fee to the OR Climate Trust. The Trust uses the funds to acquire and manage contracts for offset projects from mitigation measures such as renewable energy, energy efficiency, energy system decarbonization, and forest carbon sequestration.	CO2 sequestration (forest preservation, reforestation, afforestation, forest management, ag. soil possible) CO2 only. Offsets must occur post contract.	Oregon, US, or international, with preference given to projects located in Oregon. International projects must have strong US partner and a strong international partner in the host country.	NA	Third party review is preferred.	Unit is metric tons CO2. No specifics on measurement methodologies given. Project proposals must include a monitoring and verification plan and this will be component of project evaluation. The plan must include: 1) procedures to be employed, 2) how monitoring and verification will be funded, 3) the time frame over which the plan will be carried out and the frequency of measurements, and 4) whether or not 3rd party has been identified and contracted to audit and confirm the data and quantification of the CO2 emission reduction achieved.	Projects only funded where mitigation measures would not occur in absence of offset project funding and where CO2 emission benefit is over and above what is required by law. There is an emission reduction if surplus is not otherwise required by current regulation or other obligations. Proof of additionality determined by review board on project-by-project basis.	Project proposals must describe a Without Project Baseline and a Project Baseline and describe the assumptions and methodologies used to quantify each. The difference between the two is the CO2 emissions benefit. The Without Project Baseline must be a dynamic baseline to the extent that changes from business as usual are anticipated to occur during the project life.	Project proposals must describe how leakage is addressed by the project both in terms of how the project will minimize leakage and in terms of adjustments to the CO2 emission benefit to reflect leakage. The Trust may use their own leakage factors when evaluating projects.	Projects proponents are required to provide guarantees to ensure credit creation. As a form of guarantee, the Trust would consider a pay-for-performance approach where they would pay a fixed amount per ton of CO2 delivered over a specified period of time.	Offset law passed in 1997. First RFP for projects was issued in 2000.	No requirements are specified. Only mention for international projects is that host country approval is strongly encouraged.	Preference and special consideration is given to projects with environmental, health or socioeconomic co-benefits.	Per the legislation, new power generation facilities are required to pay \$0.57 per ton of CO2 it will emit.
The BioCarbon Fund http://carbonfinance.org ; Contact Ian Noble, inoble@worldbank.org; Benoit Bosquet, bbosquet@worldbank.org	A World Bank sponsored fund that provides financing for projects that sequester or conserve greenhouse gases in forests, agroforestry and other ecosystems. Funding is particularly aimed to aid developing countries in financing forestry, agriculture and land management projects. The goals of the Fund are to deliver: 1) cost effective emission reductions; 2) local environmental and biodiversity benefits; and 3) improved livelihoods for local people.	Two types of funding opportunities will be considered. The larger category of projects considered will be those that are potentially eligible for credit under the Kyoto Protocol. In the CDM, these projects are limited to afforestation and reforestation activities in the first commitment period. In JI they cover the range of land use, land-use change and forestry activities. Another category of projects considered will include projects other than afforestation and reforestation, and therefore will not be eligible for Kyoto credits in the first commitment period.	Projects in developing countries and economies in transition that are World Bank borrowers will be considered for funding.	NA	Independent verification by an Operational Entity (as required by the Executive Board of the CDM.)	Both types of projects will be measured and monitored using the Clean Development Mechanism (CDM) requirements in both the Kyoto Protocol and the Marrakesh Accords, as well as any additional requirements specified by the CDM Executive Board. All non-Kyoto compatible projects must comply with World Bank Group Safeguard Policies and good practice guidelines, as well as with policies and good practices established by other international organizations (for example, the Ecosystem Approach as endorsed by the CBD Decision V/6 and the National Action Programs for the CCD).	Projects that would not be implemented without the incentive provided by the Kyoto process. Additionality can be achieved if: 1) the project faces barriers to implementation that cannot be surmounted without carbon finance; or 2) without carbon finance, the activity is not economically or financially the most attractive course of action; or 3) the project brings together several activities that would not have been carried out without the incentive provided by the carbon fund.	The baseline is the most likely cause of action and development over time. The baseline scenario is determined from a set of plausible alternative future scenarios using one of the three approaches for determining baselines in the CoP9 decision text.	Leakage will be assessed for each project and baselines and discounts of credits will be made accordingly. For small scale, community based projects that will primarily be supported by the Fund, project boundaries can be established with good authority and leakage outside those boundaries will usually be small and can be conservatively compensated for via a discount. Also, the Fund seeks to identify and reduce or remove pressures that lead to land-use change (e.g. deforestation actions) and thus leakage is not expected to be a major factor in Funds supported projects.	A combination of careful project selection, regular monitoring and re-verification will be carried out to achieve permanence requirements. The Fund Management Unit (FMU) will ensure that the project sponsor maintains an adequate reserve of carbon assets to cover any losses over the life of the project. At the termination of the Fund, the FMU will select "well performing assets" to cover ongoing permanence requirements and set up a management and insurance structure appropriate to the rules at that time.	The Fund was declared operational on 5/17/04. Official project selection started on 6/10/04 at the time of the first Contributors meeting. To date, more than 100 project proposals have been received.	The World Bank Safeguard Policy on Environmental Assessment requires stakeholder consultation. The Fund will require for each project a description of additional assessment of impacts considered significant by the host country, project participants or by the FMU. Stakeholder consultations and close cooperation with local communities is an essential component of each project.	BioCarbon Fund projects must achieve net environmental and social benefits. The projects will adhere to the environmental and social safeguards of the World Bank Group. They will adhere to the World Bank Operational policies: Environmental Assessments, Natural Habitats, Pest Management, Cultural Property, Involuntary Resettlement, Indigenous Peoples, Forests and the Policy on Disclosure of Information. Fund projects will also meet and exceed the requirements of all UNFCCC decisions related to social and environmental standards for CDM project design. Where it is cost-effective and practical, social benefits will be quantified, verified and certified along with the carbon sequestration or emission reductions.	The Fund will pay on delivery of carbon credits at a negotiated price, somewhere between \$3-\$4 per ton.; NA
Climate Neutral Network (CNN); Contact Sue Hall, sue@climatenetral.com	Voluntary program and standards for corporations and individuals who have committed to reducing their emissions.	Conservation and management of forests, and reforestation. Reforestation only on land deforested prior to 1990.	Global	Land-based offsets should only make up 10-20% of the portfolio of emission reduction activities. Domestic activities should make up 2/3 of the portfolio.	The CNN Environmental Advisory Panel meets 2-3 times/yr. to review and certify projects. Protocols are being developed for third party certification.	Discount rates should be used to address cost/precision tradeoffs, and if carbon offsets are front-loaded.	Not addressed separately from the baseline and monitoring and verification of actual sequestration.	Forest projects should use a control area if available.	Carbon should be offset on more than a one-to-one ratio in order to account for potential leakage. Leakage should be minimized through the project design.	Project should be designed to address permanence.			encouraged	Payment for full carbon benefits at the start of the project.