

# Carbon Storage

Reducing atmospheric carbon and increasing resource and biodiversity value of natural habitats while building healthy, equitable communities.



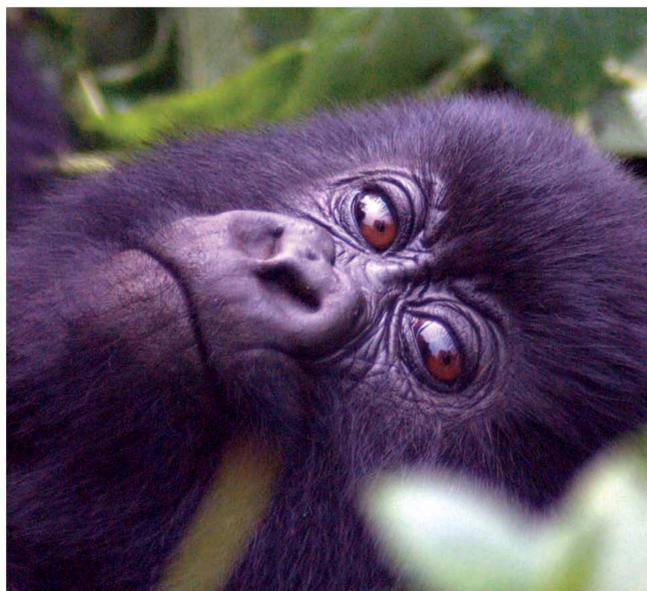
**Global Grazing lands and Greenhouse Gas Fluxes:** When the journal *Rangeland Ecology and Management* published a special edition this year on exploring carbon flux in graze lands, and their potential role in carbon-credit markets and poverty alleviation, it was UC Davis expertise that provided the editors, Emilio Laca, Mary Brooke McEachern, and Montague Demment.



**Paso Pacifico:** UC Davis Alum Sarah Otterstrom is using carbon credits to fund replanting of a tropical dry forest in Nicaragua. The forest is a species rich endangered ecosystem, in abandoned grazing lands. Dr. Otterstrom is using the project as a teaching tool for sustainable ecosystem science in Nicaragua, training communities to run local landowner cooperatives.



**Terra Global Capital (TGC):** TGC is credited with the first major REDD project approved by the Voluntary Carbon Standard, aiming to reduce poverty by producing carbon credits utilizing local labor. Villagers, Buddhist monks, TGC scientists and UC Davis professor E. Laca worked closely to establish plots and methods to monitor forest health and carbon sequestration.



**Conservation International (CI):** The large fraction of global carbon emissions generated by deforestation has prompted the world to consider compensation, using REDD, as part of the solution to combat climate change and protect global biodiversity. Hari Balasubramanian (a CI professional at UC Davis) is working hard to both alleviate poverty and enhance biodiversity conservation.

PRESERVING AND ENHANCING the storage of carbon in the plants, soils and sediments of ecosystems is essential to reducing greenhouse gases.

Carbon markets allow for trading of carbon emission allowances when groups have excess due to efficient techniques and offsets by storing carbon in other methods.

Successful, long-term solutions in carbon storage markets take shape at the intersections of ecology, economics and social equity.

Reducing Emissions from Deforestation and Degradation (REDD) is a set of steps designed to reduce carbon emissions from deforestation and first degradation with co-benefits of biodiversity conservation and poverty alleviation.

The carbon credit market is an international concept that unites participating countries and groups under a single goal—reduction of global GHG emissions.

Each of these groups taking on carbon storage continues to involve local communities in their efforts, bolstering economies and providing opportunities for jobs and preserving beautiful parts of the world to keep ecotourism alive for years to come.

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