



## Carbon Sequestration- Scolel Té Plan Vivo Program

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**Short title:** Carbon offsets for sustainable land use, Scolel Te, Mexico

**Key Message:** Carbon sequestration payments assist farmers and communities in Chiapas and Oaxaca to develop sustainable land management practices and improve livelihoods.

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Scolel Té woman with coffee  
*Courtesy: Plan Vivo Foundation*



Orchids in Scolel Té  
*Courtesy: Plan Vivo Foundation*

### What is the problem?

The Scolel Té Program addresses degradation of biodiversity, high carbon emissions and deforestation. It aims to reduce carbon emissions and restore carbon sinks while protecting biodiversity and improving both rural livelihoods and resilience to potential climate change impacts. The program uses finance from the voluntary carbon market to administer payments for ecosystem services to rural land managers.

### Which approach was taken?

The Plan Vivo System, a framework and standard used by forest carbon projects, was originally formulated in 1996 with funding from the UK Department for International Development (DFID). A pilot phase was conducted in the Chiapas region of southern Mexico, which became the Scolel Té Plan Vivo program. The program assists farmers and communities in southern Mexico to develop more sustainable land management and improve livelihoods through the provision of carbon services. Afforestation and reforestation activities are carried out using indigenous species to ensure that biodiversity is maintained. The program can increase in scale and engage new communities as new sources of finance are identified.

The program is administered by the Fondo Bioclimatico (a non-profit trust fund) with technical services provided by Ambio, ECCM and El Colegio de la Frontera Sur (ECOSUR). The program uses the Plan Vivo carbon management system and sells carbon in the form of Plan Vivo certificates. At the end of 2003, the number of communities was 28, the number of families 600 and the total land area under reforestation and conservation 4,674 ha. The income from carbon sales was US\$ 126,775 in 2003 (Annual Report 2003). By 2005, the Scolel Té program included participants from 43 communities across Chiapas and Oaxaca, southern Mexico (Scolel Té Annual Report 2005).

From 1997 to 2007, the programme succeeded in increasing the number of participants as well as reforested area. The following significant achievements were seen in these 10 years:

**Table 1:**

Number of Producers	677
Number of Families	2400
Number of communities	51
Total area under reforestation	7534,54 ha
Amount of carbon sold	42,053t
Amount paid for carbon(in US\$)	311,495

*Source: Annual Report 2007 Scolel Té*

The expenditure of the programme had increased from 2006 to 2008. The data of table 2 shows that the payments given to the producers for carbon sequestration had decreased from 2006 to 2008.

**Table 2:**

	2006(in US\$)	2008 (in US\$)
Expenditure of the programme	56,980	117,660
Payments given to producers for carbon sequestration	30, 268	18,618

*Source: Scolel Té Annual Report 2006 & Bazan et al. 2008*

During 2009, the payments made to communities, ejidos<sup>1</sup> and producers was US\$ 42,866 and the expenditure of the programme was US\$ 76,536. The total area under the programme has increased from 315 ha to 7,813 ha during the period 1997-2009. The number of producers has

<sup>1</sup> About 80% of Mexico's forests are legally titled to local communities called ejidos and they practice agriculture and Forest management on family plots or common forests.

also increased from 240 to 798 in this period and the number of families participating from 270 to 2,024 (Bazan et al. 2010)

### **What ecosystem services were considered and how?**

The ecosystem services considered in this case were carbon sequestration and storage; biodiversity preservation; and improvements to soil fertility and water quality. The program facilitated the development of rigorous and conservative carbon accounting methodologies. It also pioneered the use of a community-based monitoring system to ensure that the program not only increases carbon sinks but also improves the level of technical expertise among the people who are involved in this programme.

### **What input was required to do so?**

A handful of farmers participated in the pilot phase. Later the number of participants rose, and their support was necessary for program implementation. The project participants ('producers') are small-scale farmers, forest dwellers and other land owners. The program is managed by AMBIO, a Mexican NGO, which recruits producers and coordinates training. The producers create sustainable land management plans ('plan vivo') by combining existing land uses and agricultural activities with additional activities such as the creation, restoration and protection of indigenous forests and woodlands, as well as agroforestry initiatives that improve crop productivity, soil quality and protect watersheds. Carbon is used as a metric for payments and monitoring in what is effectively a 'bundled ecosystem service' program.

### **What was the policy uptake, and what were the conditions for this effort to actually influence public management?**

The program has continued to be a focus of international research and collaboration and a standard for the development of good terrestrial carbon management practices in developing countries (Scolel Té Annual Report 2005). It delivers multiple environmental and social benefits, including poverty reduction and improving organizational and technical capacity in the area through long-term training and awareness-raising initiatives. Also, it has helped reduce greenhouse gas emissions, improve conservation of endangered native species, strengthen surrounding protected areas, maintain biodiversity and soil and water quality, as well as regulate regional microclimates. This program has helped restore degraded pine-oak forest in upland areas and to protect the endangered Tropical Montane Cloud Forest.

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