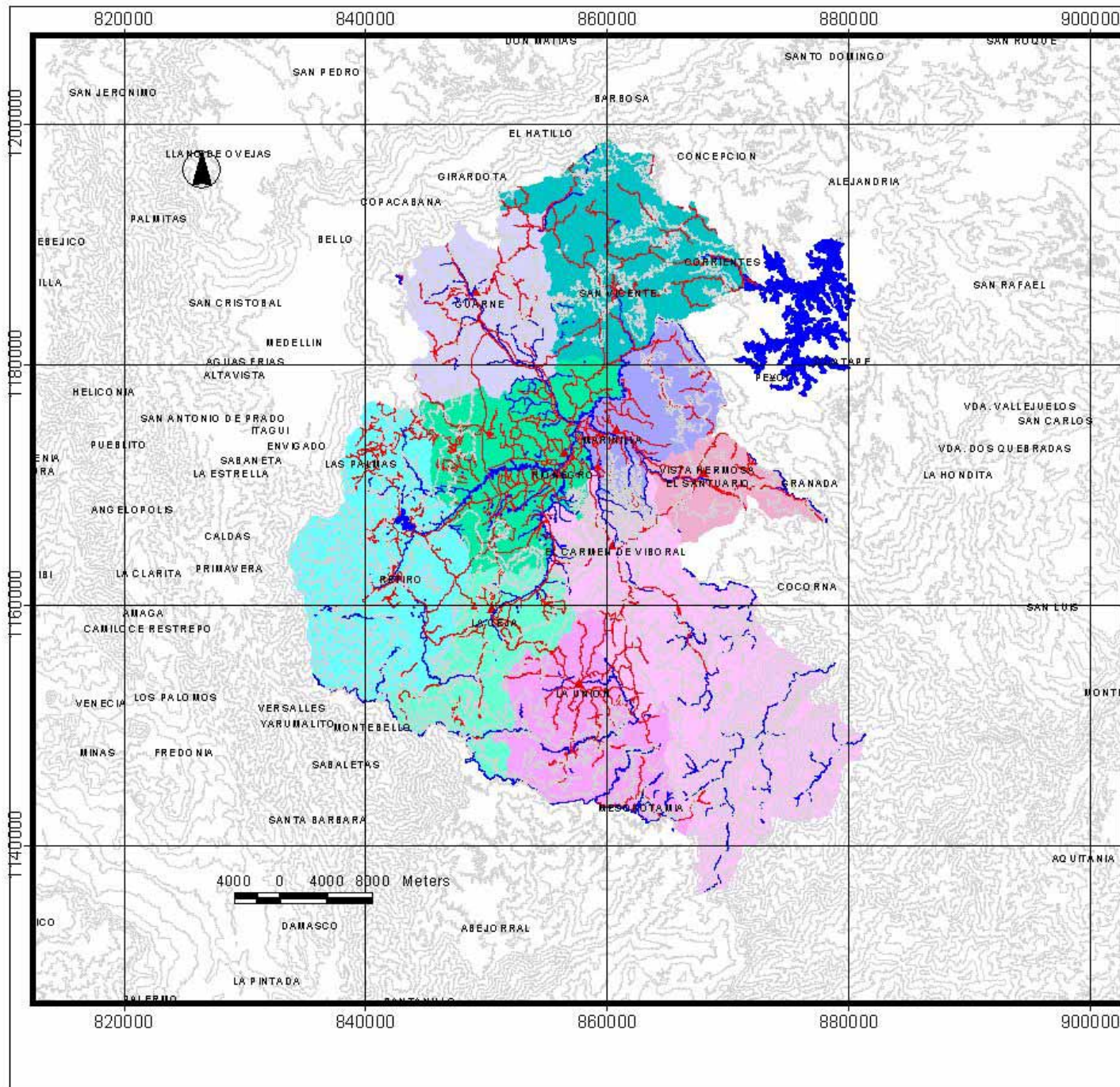


**Alternative
Financing Model for
Sustainable Management in the**

San Nicolas Forests

Colombia

**CARMENZA ROBLEDO
Intercooperation/EMPA**



MODLEO DE FINANCIACION
ALTERNATIVO PARA EL MANEJO
SOSTENIBLE DE LOS BOSQUES
DE SAN NICOLAS



Localización





30.000 ha declared for conservation



More than 10.000 families



90% Private owned,
mostly small farmers



42.000 ha as „forests apt“

Project partners

Design phase (22 months)

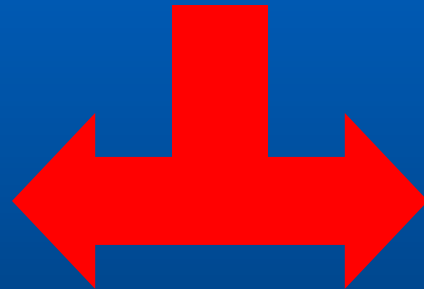
- Autonomous Regional Corporation for the Rionegro - Nare Region (CORNARE)
- Swiss Federal Laboratories for Material Testing and Research (EMPA)
- International Tropical Timber Organization (ITTO): Funding agency
- Intercooperation: Technical backstopping on behalf of seco
- Seco: Mayor donor



Project rationale

Test a methodology for the Financing of long-term Sustainable Management of Forests (SMF)

Knowledge and Technologies for the Sustainable Management of Forests (SMF)



CDM (reforestation y afforestation)

National and international investors in SMF

Participative decision making process

Social Component

- **During the design phase**
 - Through a Regional Forum (including public and private sectors, civil society)
 - Information and capacity building
 - Exchange and formulation of project activities
 - Decision Making (through concertation)

- **During the implementation**
 - Monitoring and Verification Plan
 - Definition of social and environmental C&I

Project results

- Management Plan for the region
 - CDM component (reforestation)
 - Non-CDM component (forest conservation and forest rehabilitation)
- Investment and Financing Plan
- Promotion of social and institutional alliances to facilitate implementation of the management plan

Project outputs

- Creation of the San Nicolas Forests Corporation
- Financial instruments and trust fund
- Forests inventory and forest management plan
- Socio-economic characterization
- CDM documentation: PDD, Carbon quantification study, MVP
- Risk management strategy
- Market analysis for timber and NTFP
- Training and participation of the local community






Financial Instruments for Environmental Services Payments

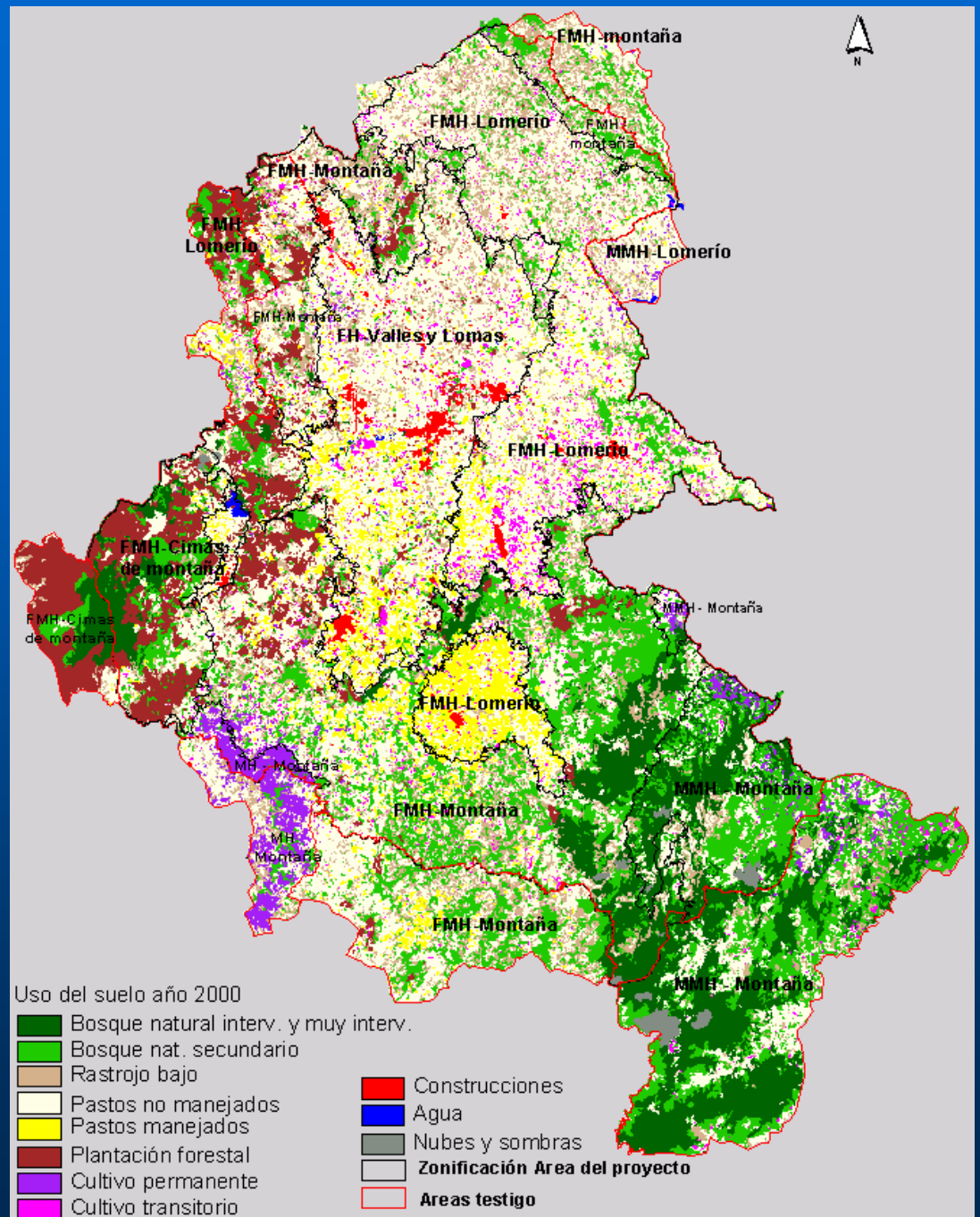
- Certified Emission Reductions (CER) → Kyoto eligible
- Verified Emission Reductions (VER) → Kyoto non-eligible
- Environmental shares (ES) → Other environmental services
- Environmental and Social Recognition (ESR) → Corporate PR

Managed by the legally installed Corporation that incorporates GOs (municipalities and the department), entrepreneurs, NGOs and the land-owners

Establishment of a trust fund

Kyoto eligible land

-  Secondary bushes
-  Pastures
-  Managed pastures
-  Permanent crops
-  Annual crops



Current land use (baseline)

- Highland zone
 - Extensively managed pastures
 - Intensively managed pastures (seeded and fertilized)
 - Croplands (permanent and annual)



- Lowland zone
 - Extensively managed pastures
 - Croplands (permanent and annual)



CDM eligible project activities

1 Silvopastoral system

Alnus acuminata + *Persea americana*

6 Forest plantation systems

Alnus acuminata, *Persea americana*, *Guadua angustifolia*, *Pinus tecunumannii*, *Pinus ocarpa*, *Acacia mearnsii*, and others

6 Agroforestry systems

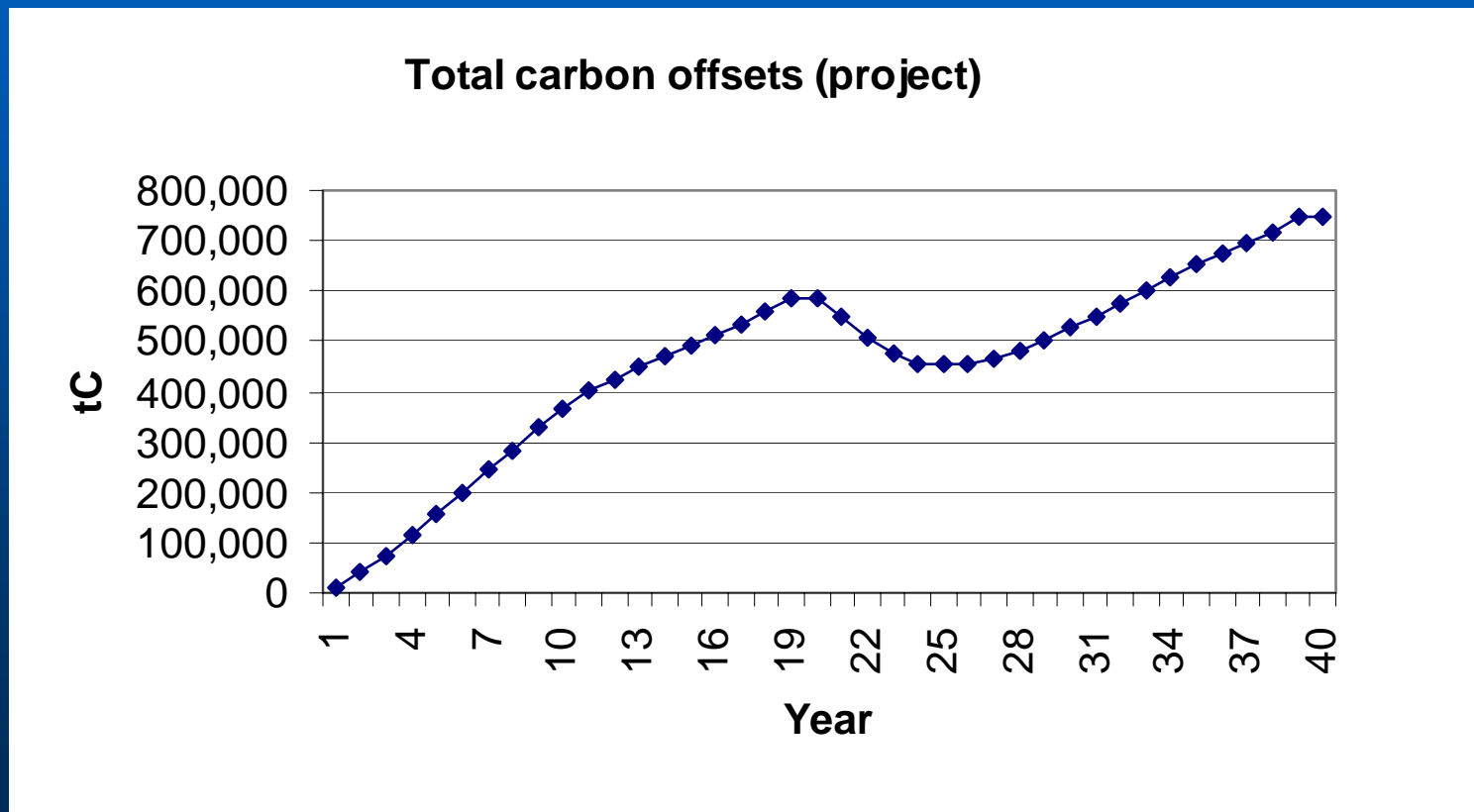
Various combinations including timber, citrus and other fruit trees, platano, corn, beans, yuca, coffee, sugar cane, etc.

Activities non-eligible for CDM (Voluntary markets)

- Rehabilitation of degraded forests with native species
- Forest conservation activities
- Harvesting and processing of NTFP and selected timber products

Carbon quantification

Overall result



Results of the Financial modelling

| Accounting method | # CER | # VER | Price CER | Price VER | Price AMA | CER+ | VER + AMA | Comments |
|---|-----------|-----------|-----------|-----------|-----------|------|-----------|--|
| Stock change; crediting period 21 y | 1'368'133 | 1'118'862 | 5.30 | 2.00 | 1.50 | 6.80 | 3.50 | |
| Stock change; project life-time | 1'621'495 | 1'118'862 | 6.04 | 2.00 | 1.50 | 7.54 | 3.50 | Price higher than for the 21 yr crediting period due to a reduction of the stocks from year 20 onwards, caused by harvesting of timber |
| Average storage; 40 yrs | 930'332 | 1'118'862 | 8.36 | 2.00 | 1.50 | 9.86 | 3.50 | |
| Temporary credits (issued every 5 yrs, unlimited validity); 40 yrs | 1'621'495 | 1'118'862 | 6.87 | 2.00 | 1.50 | 8.37 | 3.50 | Huge financing gaps, money must be borrowed, Assumed interest rate: 8% |
| Temporary credits (issued yearly after 5 yrs, valid for 5 yrs); 40 yrs; average storage | 1'566'679 | 1'118'862 | 7.20 | 2.00 | 1.50 | 8.70 | 3.50 | Huge financing gaps, money must be borrowed, Assumed interest rate: 8% |

Project risks, uncertainties and responsibilities

■ Analyzed risks

- Policy, market, technical, internal risks, country risks

■ Proposed management strategies

- Good practices within the project (social and forests practices)
- Transparency and accuracy
- Financial
 - Buffer on CER (15%)
 - Replanting fund (2% of project costs)
 - Contingencies (5% of project costs)

Monitoring and Verification Plan

- Aimed to be transparent, accurate and participative
- Includes CDM and non-CDM eligible activities
- Includes a set C&I on environmental and socio-economic impacts designed with the community
- Includes leakages and other GHG emissions
- Make possible the verification of the calculations for the C modelling
- Define activities for quality control

Looking ahead

- CDM Project validation and registration (?)
- Promotion of the financial instruments
 - BioCarbon fund (already submitted)
 - National and international investors interested in voluntary markets and/or CDM markets
- Second phase of the ITTO project with emphasis on the rehabilitation and forest conservation on non-Kioto land: 2004-2006

