Project no. INCO - 518706

SINREM

Synchronising Information for Local-National Participatory Natural Resources Management

Specific Support Action

FINAL ACTIVITY REPORT

Due date of deliverable: 28/02/09

Actual submission date: 15/03/09

Start date of project: September 1, 2006   **Duration: 30 months**

Organisation name of lead contractor for this deliverable: Centre de coopération internationale en recherche agronomique pour le développement

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Executive summary

General information

The Specific Support Action project **SINREM** aims at developing permanent network between Central American Universities and public organizations, and European research centres, and at building strategic plan, with a central question being : " *how to improve the implementation of strategies for harnessing sustainable use of natural resources and contribute to territorial development in transborder remote areas of Central America, including target groups being local stakeholders and public sector organizations at several levels, through dialogue, coordination and innovation spaces* ".

The project intends to identify policy options and/or management strategies for harnessing judicious use of resources by:

- Implementation and coordination of an operative network between final users, national universities, regional institutions and European research centres.
- Training and capacity building of both academics and local stakeholders to enhance their ability to evaluate and address the questions related to sustainable development options, and to strengthen their contribution to sustainable development methods and instruments.
- Evaluate the state-of –the-art by data mining, and share information and knowledge in support to multi-stakeholder processes
- strength appropriate spaces for dialogue, negotiation and innovation spaces within transborder Trifinio area and allow stakeholders to produce agreed analysis of natural resources, propose shared visions of the issues and prospects of the future development, and design coordinating strategies.
- Develop a strategic plan for a research-action network and associated dissemination to support the Comision Trifinio and the Comision Centroamericana de Ambiente y Desarollo (CCAD/SICA). This strategic plan will designed for a further 7th PCRDT project of the European Commission.

The project consortium consists of the European partners CIRAD and Universidad de Castilla La Mancha (UCLM). Three centroamerican universities are partners: Universidad San Carlos de Guatemala (USAC), Universidad nacional de El Salvador (UES), Universidad Nacional Autonomia de Honduras (UNAH). Two regional centroamerican Institutions assist the cross-country activities and responsibilities: Comision Trinacional del Plan Trifinio (CTPT) and Comision Centroamericana de Desarrollo y Ambiente (CCAD). The project is coordinated by Dr. Jacques Imbernon from his office in Montpellier (France). Project coordination is assisted by a Steering Committee. Members of this SC are: Prof. Mario Orellana (UES), Prof. Hugo Tobias (ESAC), Prof. Margarita de Ochoa (UNAH), Prof. Miguel Panadero Moya (UCLM), Juan Carlos Montufar (CTPT), Roberto Rodriguez (CCAD).

The project was initialled programmed to last 24 months, but a 6 months extension was approved in 2008. The contract was legally initiated on the 1st of September 2006. Commission funding was transferred to project partners on the 10 of October 2007. The project kick-off meeting was held on 20-22 September 2007 in Esquipulas (Guatemala). Formal research activities did not start up until October 2007.

The project closed on the 27 of February 2009 with a regional conference held in San Salvador (El Salvador), and attended by all project partners, local governments of the Trifinio area, national ministries representatives, and international donors.

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Work performed

The project, initially planed for two years, was extended in 2007 for 6 more months, with the agreement of the European Commission. This extension was justified by some delays when the project started in the Centro American region.

Thus Year 2 is considered in this report from September 1st 2007 to February 28th 2009.

WP1 – Co-ordination and networking

Fr Year 2, 2007-2009 project activities, as programmed in the revised DOW (with 6 months extension), have been executed without any deviation. The deliverables 12 to 16 have been made on time and are enclosed to the final report.
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A WP leaders and SC meeting was held in Esquipulas from 5 to 7 of December 2007, following a training workshop on "environmental services payment" in Copan (Guatemala) on December 3 and 4 2007.

Then several project management meetings were held with WP leaders in the region during visits to the CTPT offices in Esquipulas (Guatemala): October 2008, January 2009 and February 2009. The last coordination meeting was coupled with a regional conference that we organized on February 27 2009 in the Radisson Hotel of San Salvador, with representatives of the national Universities, the Ministries, the donors and different organizations (NGO, research centers).

The link between the Centro American Universities themselves has been strengthened and a real collaborative and sustainable relationship has emerged. The network between these Universities and the European partners has worked very well and new relationships have been initiated with Mexico, and particularly the "Autonomous University of Mexico State" (Toluca).
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A cooperation agreement contract has been signed between the Consejo Superior Universitario Centroamericano (CSUCA), and the Europeans partners: CIRAD and UCLM, and there are good conditions for strengthening collaboration between European and Centro American Universities are.

WP2 – Training and capacity building

In year 2, many students at master level were involved in the project: 8 from UES, 14 from USAC, 6 from form UNAH. These students were supervised by professors of the three national Universities.

Training workshops were held in December 3 to 4 2007 in Copan - Guatemala ("payment for environmental services") and in December 13 to 14 2008 in Tegucigalpa - Honduras ("territorial planning"). About 15 professors and investigators of the 3 national Universities attended these courses.

At international level, a "trinational PhD" project on "integrated management of transbordering territories" has been prepared for the Alfa III announcement (EU)) by the 3 national Universities, CIRAD and the University of Castilla La Mancha, and the SupAgro France. The project was delivered on June 16 2006

WP3 – Data mining, delivering and sharing

During Year 1, data available in the different institutions and projects working in the region have been collected, cleaned, homogenized and informed with metadata (ISO 19115). The lack of data at local scale was identified during workshops with local stakeholders.
In Year 2, many new data have been generated on the field: networks of local actors, land use changes, quantity and quality of water… These data have been integrated in the data base.
The structure of the Trifinio Information System which was been designed in Year 1 has been implemented at the CTPT office in Esquipulas. CTPT technicians have been trained to manage the System (updating). A master degree report was produced about this issue (student: Ana Meneses, supervisor: Jacques Imbernon).
At the end of Year 2, the System has then been transferred to local governments: municipalities and mancomunidades (association of municipalities) to strength their capacity to elaborate diagnosis and strategies of sustainable development on their territories. The national Universities have been in charge to implement the system and to capacitate the technicians of the municipalities.
A new portal was designed and implement on a CCAD server at the end of year 2. This portal give open access to information related to Trifinio area through Internet. It is called "Agua sin fronteras": http://www.aguasinfronteras.com.   This portal is replacing the Web page of the project: http://inco-sinrem.cirad.fr/;

WP4 – Dialogue and negotiation spaces, and processes consolidation

During Year 2, more than 40 workshops were organized in the municipalities of the area. Local partners and stakeholders participated: civil society (NGO's, community-based organizations, coffee producers), and public sector entities (municipalities, departments, forestry and agriculture national institutions representatives).

A specific study was conducted about mechanisms of consultations about the process of creation of 'mancommunidades, their statutes and organizations, and their relationships with civil society, governments and international institution. The water management within these mancommunidades was specially looked at. The statutes of the Trinational Association of Municipalities, its position in the administrative structures of the region and its activities related

water management issues was also analyzed. This study was published in a master degree report (student: Claire Balay, supervisor: Jacques Imbernon)..

A review of all the laws and regulations tools related to natural resources management in the three countries was made. The perception and use of the legal tolls by local population and government was evaluated through various specific workshops.

This WP4 has allowed facilitating co-ordination among public institutions, NGOs and local organizations, and has provided support to facilitate relationships between the *"municipios"* of the three countries in view of enhanced transbondary integration.

WP5 – Strategic planning

This WP started in Year 2. It is mainly based on previous results of the project (data base, identification of actors and networks…) and on informal meetings and interviews held with local partners and stakeholders: civil society (NGO's, community-based organizations, coffee producers), and public sector entities (municipalities, departments, forestry and agriculture national institutions representatives).

Consultations and foras were mainly organized with 3 types of actors: local targeted groups (associations, municipalities, NGOs…), Central American and European Universities, National Ministries and international donors. The project was very active in this way, with more than 45 events, and various missions in Europe and Mexico.

Strategic plans were build as the proposal of Municipal Water Commities in El Salvador. And a conference was organized in San Salvador to present results to Ministries, Rectors of Central Amerivcan Universities and internationla donors.

For the project partners, one of the main expectative is a new collaborative project between european and Centroamerican Universities that was presented to the European Comission. This project aims to create a trinational PhD on the management of transbordering watersheds.

Section 1: Project objectives and major achievements

General project objectives and current relation to the state-of-the-art

The main objectives of the Specific Support Action SINREM are: developing permanent network between Central American Universities and public organizations, and European research centers, and building strategic plan to improve the implementation of strategies for harnessing sustainable use of natural resources and contribute to territorial development in transborder remote areas of Central America, including target groups being local stakeholders and public sector organizations at several levels, through dialogue, coordination and innovation space.

Specific objectives for the reporting period, work performed and main achievements in the period.

Specific objective 1 - Implementation and coordination of an operative network between final users, national universities, regional institutions and European research centres.

For this objective, the work was principally concentrated in WP1 and WP4, with inputs from WP2 (training and capacity building). WP1 was led by CIRAD the team leader Dr. Jacques Imbernon. The WP1 leader worked in close relationship with the coordinators of the 3 National Universities, UCLM, CTPT and CCAD.

The project has allowed Centroamerican Universities and European research centers and Universities to strength their relationships. 8 meetings have been organized in Esquipulas (Guatemala), involving members of each of the institution: September 2006, February 2007, July 2007, August 2007, December 2007, October 2008, January 2009 and February 2009.

This network has been very operative on the field and the cooperation between centroamerican Universities was excellent and an example of regional cooperation in a transbordering area. The main results are a very good sharing data and knowledge between the 3 Universities, (e.g. USAC offering capacities of chemical laboratory for water quality analysis to UNAH), and the strong cooperation to build trinational "doctorado" (master to PhD).

One student-investigator from University of Guatemala, Maria Belen, came to CIRAD France for 8 weeks, to work with Jacques Imbernon on the design of the Information System.

One student-investigator from CIRAD-SupAgro Montpellier, Ana Meneses, went to Esquipulas, Guatemala, to implement the Information System at the CTPT office and train the System administrator and CTPT technicians. An student-investigator from CIRAD-AgroParisTech went to Esquipulas, Guatemala, to analyze the process of creation of mancommunidades.

Prof. Miguel Panadero Moya went in February 2007 to Central America to initiate a collaborative process of training and capacity building.

Prof. Margarita de Ochoa (UNAH, Honduras), Hugo Tobias (USAC, Guatemala) and Mario Orrellana (UES, El Salvador) went to CIRAD-France and UCLM-Spain to visit European institution and prepare the "Doctegit" Project (UE-AlfaIII). They also visit the University of Mexico (Toluca) to implement new collaboration between Central America and Mexico.

Final users at local level, municipalities and association of municipalities (mancommunidades) were associated to numerous workshops and were strongly associated to the field work of the Universities and to negociation process to build strategic plans.

Specific objective 2 - Building strategic plan

After Year 1 which was more focused on data base building and information system development, and on collecting data and generating new information, Year 2 has been dedicated to:

- training of investigators and professors of the Universities, as well as CTP technicians, on prioritized issues (see WP2) through various workshop (e.g. Ordonamiento territorial),
- elaboration of a new project: a trinational "doctorado" called "management of transbordering territories" leaded by the 3 national Universities,
- and strengthening processes of dialog with local communities and national institutions to design the local plans of natural resources management.

Local actors were involved directly in the different activities through a participative approach. All the knowledge adquired during the project with the participation of the local actors through a broad consultation was used to elaborate nationally and locally-owned sustainable development strategies and establish a comprehensive set of planning and decision-making processes, and funding from each national point of view. A general strategy to tackle sustainable development in transbordering areas, education and networking was pointed out and emphasized.

Section 2 : Workpackage results

WP1 FINAL ACTIVITY REPORT

WP1 Objectives
Manage activities, improve communication, ensure logistic.

Manage legal, contractual, financial and administrative activities. Ensure that the action is conducted with the maximum efficiency, while respecting the planning and deadlines. Improve and maintain close communication between partners. Organize the different workshops in relation with the partners. Design and update the project web-site. Keep the European Commission informed of progress and get its feedback and inputs on the project. Prepare and edit the progress and final reports, write meeting reports and send them to all partners and to the European Community.

Work initiation: September 2006

Task 1.1: Improve communication between partners within the project network.

    1.1.A.-**Progress** towards objectives:
The coordination team was reinforced by an administrative/secretarial assistant. The incoming person is Ms. Marie France Chazalette, working 5% on the project. She is based at CIRAD – Montpellier (France) with Jacques Imbernon. In 2009 (January and February), at the end of the project, a budget officer of CIRAD, Didier Gout, was associated in the preparation of the final financial report.

The September 2006 WP leader and national coordinators meeting (steering committee) in Guatemala prepared programming of research activities for 2006-2007. Six other additional annual project meetings were held: February, July, August and December 2007, October 2008 and January and February 2009. During the first meeting in September, the Steering committee decided to focus the project on water management (quality and quantity), in strong relationship with the initiative of CTPT called "Aguas sin fronteras" (see deliverable 2).

The project coordinator has participated in several of the technical workshops in local communities (related to WP3 and 4), in order to be better informed, and to be vigilant regarding appropriate future outputs and their quality.

In general, communications with most WP leaders have gone smoothly. Skype was frequently used to communicate directly between countries.

One of the main challenges has been to coordinate the integration between the different cultures and level of knowledge of the three national Universities involved. But partners have been very happy to find here a way to better collaborate in the region.

    1.1.B.-**Deviations** from the project work-program:
Not any

    1.1.C.-**Corrective actions** taken/suggested :
Not any

Task 1.2: Design and update the project web-site

    1.2.A.-**Progress** towards objectives:
The project web-site was designed in November 2006. The operational implementation was made in January 2007 (http://inco-sinrem.cirad.fr/). The web-site informs about the project objectives, final users, partners, methods, workshops and results.
A new web-site was designed in 2008 and installed on the server of the Commision Centramericana de Desarrollo y Ambiente (CCAD) in San Salvador. This web wite is much more informed (documents, maps, news…) and the administration of the web site by CCAD will be much more sustainable over time. Look at:
http://aguasinfronteras.com/

    1.2.B.-**Deviations** from the project work program:
The final web site "Agua sin Fronteras" implementation has been delayed due to

technical difficulties and many discussions in order to get the best 'product' we can. It was operational at the end of 2008 (December).

1.2.C.-**Corrective actions** taken:
A strong collaboration between CCAD and CTPT has been necessary.

Task 1.3: Steering Committee organization.

1.3.A.-**Progress** towards objectives –
Four Steering Committee meetings were organized, in addition to the WP leader meetings. Moreover SC members were individually consulted during several meetings held in the region.

external person were invited during some SC meetings: the secretary of "Consejo Superior de las Universidaes Centro Americanas" (CSUCA) and a professor of the University of Toluca (Mexico).

The project leader made many trips and visits in the region. He meet the EU partner, Universidad de Castilla La Mancha, in Albacete (Spain) in November 2006 and in Montpellier (France) in June 2007.

1.3.B.-**Deviations** from the project workprogram:
Not any

1.3.C.-**Corrective actions** taken:
Not any

Task 1.4: Progress and final reporting

1.4.A.-**Progress** towards objectives –
None of the centroamerican partner was able to report in English. Though the project coordinator has to translate reports from Spanish to English: this has been a heavy additional work. But anyway, the three centroamerican universities and University of Castilla La Mancha have well contributed to the reporting.
In addition to the web site, the final reporting integrates documents related to the Alfa III proposal ("doctorado trinacional"), the 3 Atlas edited and the training document for primary schools.

1.4.B.-**Deviations** from the project workprogramme:
No deviation reported, in relation to the revised Document of work..

1.4.C.-**Corrective actions** taken:
As the edition of the 3 Atlas was not planned in the revised budget, the team leader get the agreement of EU and Castilla La Mancha to transfer 10 000 Euros from UCLM budget to CTPT budget (in El Salvador) in order to cover these extra-costs.

WP2 PERIODIC ACTIVITY REPORT

WP2 Objectives

Strength the capacity of national partners to tackle methods and instruments related to sustainable development options based on an understanding of environmental potentials and limits and of needs as perceived by the local stakeholders.

Help local stakeholders to strength the processes and rules that influence their collective and individual behavior and performance in their endeavors and practices.

Build a close relationship between academic partners, technical Trifinio project staff, national Ministries, regional institutions… and some local communities.

Work initiation: October 2006

Task 2.1: On site training courses for teachers, investigators and some "postgrado" students of the 3 Universities, and for Trifinio technical staff, on i) data mining, management and sharing (information systems), ii) participatory mapping, iii) dialogue and negotiation approaches, iv) knowledge of the public policy cycles and instruments, and v) economic and social value of biodiversity and the rendered environmental services, including on field visits.

2.1.A.- Progress towards objectives:

Trifinio technical staff was trained to the use and management of the information system implemented at the CTPT offices.

During the 2 years ½, many students were involved in the project as part of their academic curriculum: 25 from UES, 16 from USAC, 8 from UNAH, on data mining, participatory approaches, economic value of biodiversity and public policies instruments. It has been a great result for the project and the students have been very happy to join the team.

Two training courses for professors and investigators were organized in Year 2.

- "territorial planning" on December 13 and 14 2008, in Tegucigalpa (Honduras), coordinated by Guillermo Navarette (Ministry of Environment, El Salvador)..
  Corresponding materials are available on:
  http://www.uclm.es/centro/CELatinoamericanos/actividades.asp
- payment for environmental services on December 2007 in Santa Rosa de Copan (Honduras), coordinated by Dr Ariel Ortiz (USAC, Guatemala).

Moreover a workshop on "writing scientific articles" was organized and coordinated by UCLM through the web.

See: http://www.uclm.es/centro/CELatinoamericanos/actividades.asp.

2.1.B.- Deviations from the project work programme:

Training courses for teachers and investigators have been delayed due to the difficulty to mobilize all partners and conference speakers at a same period. But training has been done.

2.1.C.- Corrective actions taken:
Regional expertise has been mobilized to coordinate these courses and make conferences, instead of European expertise.

Task 2.2: Participatory workshops for voluntary local stakeholders and targeted groups, involving external stakeholders as Universities and technicians, on i) the idea of public goods (the content of that notion must be built together), ii) the dialogue and negotiation approaches, iii) the technical issues like sustainable production and extraction techniques, including participatory zoning) and iv) knowledge of the public policy instruments.

2.2.A.- Progress towards objectives:
In Year 1 and Year 2, many workshops were held in local communities with local stakeholders.

In Santa Rosa, El Rosario and San Ignacio (El Salvador), 8 workshops have been organized by the UES.

The objectives were to collect information about the territory and the natural resources, seen from the perspective of the local actors (e.g. participative mapping and surveys, to present the results of the project and offer some products (3D model, atlas of the river basin) and design a strategy of territorial planning.

Workshop of socialisation and diagnosis in San Ignacio, Chalatenango

In Dolores-Merendon (Honduras), 8 workshops were organized by UNAH.

In Esquipulas (Guatemala), USAC organized 7 workshops were organized with representatives of municipalities as well as local organizations (women, coffee producers …) to share the various visions of territorial planning.

2.2.B.- Deviations from the project work programme:
Nothing to report

2.2.C.- Corrective actions taken:
Nothing to report

WP3 PERIODIC ACTIVITY REPORT

WP3 Objectives

To explore, create, aggregate and disseminate information.

To explore data and knowledge, and to share and disseminate them, in order to empower target groups through access to information, to consolidate dialogue and negotiation processes, and to allow shared visions on natural resources.

To fill main gaps of information at local level, through a participatory approach, like "participatory mapping".

To aggregate data and meta-data within an operative information System, located at Trifinio technical offices in Esquipulas and CCAD offices in San Salvador.

Work initiation: October 2006

Task 3.1: Data Mining will explore all existing data in order to derive new information, and to find patterns across datasets. This will involve cleaning data, data transformations, and performing some preliminary feature selection operations to bring the number of variables to a manageable range and an understandable form.

3.1.A.- Progress towards objectives –
Three major sources of data have been used:
- PROCEDAMO, a European project that made in depth studies on the rio Lempa Salvadorian watershed in 2004,
- PTCARL, a BID project that works in the upper watershed, with the help of CATIE (Centro Agronómico Tropical de Investigación y Enseñanza, Costa Rica),
- The Trifinio Comission that stored data acquired within different projects, in particular a European Commission project in the 90s.

Some other raster data have been collected:
- Spot satellite images of 2002.
- Digital Elevation Model (DEM), downloaded from NASA portail (SRTM data)
- Landsat satellite images of 1991 and 2000

All these data were collected, cleaned and integrated during Year 1 in a trinational information system, as well as municipal information systems. In Year 2, new primary data were collected on the ground by the 3 national universities (river flow, water quality, land use, water sources….) and integrated in the information systems.

3.1.B.- Deviations from the project wor kprogramme:
None

3.1.C.- Corrective actions taken:
Information systems including data base were implemented at Trifinio Offices in Esquipulas and in the different municipalities of the area. Local technicians were trained in order to use these information systems.

Task 3.2: Exploratory analyses will be done using graphical and statistical methods in order to identify the most relevant variables. All data collected will be located and geo-referenced to allow further analysis, and a better knowledge of how natural resources are distributed and process of degradation are extending.

3.2.A.- Progress towards objectives –
One of the first difficulties was the heterogeneity of data formats: Excel, Pdf, Shape, Jpeg, Bmp, Gif, Tiff, Word… Only manageable formats in a GIS were selected: shape format, raster format, excel tables, when there geo-referenced.

The other main problem we faced was that data layers were not projected. In relation with partners, the WGS_1984_UTM_Zone_16N projection was selected as a reference and all layers were projected.

First exploratory analysis has been made using these data – a list of data by topics. Maps of the area at different spatial scales were made in order to represent how natural resources: water, land cover, soils… were distributed. A special attention was given to local scale.

Most of the maps realized at local scale (the 3 small watersheds) have been edited in the 3 Atlas (one per country).

3.2.B.- Deviations from the project work programme:
None

3.2.C.- Corrective actions taken:
None

Task 3.3: Data sharing and dissemination will be done through a Project web-site. But a special effort will be made on information sharing and dissemination at local stakeholder's level through various workshops. Identification of missing data will be analyzed and priorities will be identified during these workshops with the stakeholders.

3.3.A.- Progress towards objectives –
The project web-site allowed sharing general information on the project. Sharing and dissemination of data through the CCAD portal, using web-mapping tools, has finally be implemented at the end of 2008.

A great attention has been given in sharing and dissemination of data at local stakeholder's level. The three "socialization" workshop organized in February 2007 with local stakeholders (Esquipulas, Dolores Merendon and San Ignacio) were focused on information: the actual level of information and the main gaps of information to tackle natural management issues at local scale.

All products: 3D model, atlas, educational document for primary schools, diagnosis report, strategic planning… have been formally delivered to local actors: local governments, local associations, schools…

The project project was progressively abandoned (not maintened): http://inco-sinrem.cirad.fr/ ". And the new portal http://www.aguasinfronteras.com was designed in 2008 and installed on the server of the 'Commision Centramericana de Desarrollo y Ambiente' (CCAD) in San Salvador. This web site is much more informed (documents, maps, news…) than the previous project web site;And the administration of the web site is done by CCAD and will be much more sustainable over time.

3.3.B.- Deviations from the project work programme:
The portal called "Agua sin Fronteras" was implemented on a CCAD server in December 2008, due to not enough availability of the CCAD experts.

3.3.C.- Corrective actions taken:
Transfer of information from the CTPT to the CCAD.

Task 3.4: To better fill existing gaps, the project will emphasize "participatory mapping" of natural resources and their management, using local knowledge and vernacular classifications. This knowledge will be produced through the participation of external animators (partners of the Universities and the Plan Trifinio technicians) and the base-groups of the municipalities.

3.4.A.- Progress towards objectives –
Participatory mapping on land use and land use changes has been done in Honduras with the base-groups of the municipalities.
In El Salvador the actualization of the Corine Land Cover maps done in 2002 has been updated. In Guatemala, a very detailed land use map of the watershed has been produced, using the aerial ortho-fotos and the knowledge of resident in the area.

3.4.B.- Deviations from the project workprogramme:
None.

3.4.C.- Corrective actions taken/suggested
None.

WP4 PERIODIC ACTIVITY REPORT

WP4 Objectives

Empower local and state target groups in decision-making processes.

Identify existing conflicts and opportunities on access to natural resources, networks and alliances and institutional capacities. Empower local and state target groups to participate more effectively in existing decision-making processes that directly or indirectly affect their choices and opportunities.

Identify key national processes, policies and instruments which impact locally-identified priority issues. Deepen the relationships among project partners and the Ministries of Environment and Agriculture of each of the country and create synergies with government initiatives.

Work initiation: January 2007

Task 4.1: First informal introductory meetings and interviews will be held with local partners and stakeholders: civil society (NGO's, community-based organizations, coffee producers), and public sector entities (municipalities, departments, forestry and agriculture national institutions representatives).

4.1.A.- Progress towards objectives –
First informal meetings and interviews were held in the different communities of the 3 river basins. From the point of view of local actors living in the river basins area or depending of their natural resources, one of the main problems appears to be the contamination of water. And the major cause of contamination is due to the coffee pulp processed by the small coffee producers. This contamination has a very negative impact on water quality for human consumption.
Land use changes have also been identified as a problem as the agricultural 'frontier' is extending in natural (forested) areas. The local actors consider that it has several implications, among them the loss of flora and fauna, and more generally a loss of biodiversity in aa area where mountain forests predominate. It has also a large impact on soil erosion.
These meeting were attended by local government representatives and civil society representatives.

4.1.B.- Deviations from the project work programme:
None.

4.1.C.- Corrective actions take
None.

Task 4.2: Workshops with local stakeholders in each of the three national micro-regions of the Trifinio area, in order do identify key stakeholders, individual and collective capacities, different perceptions about positive and negative socio-economic and environmental impacts of the human activities and practices, existing networks and alliances, shared areas of common interest, existing spaces for dialogue, coordination and negotiation, willingness to participate in coordination/dialogue for a.

4.2.A.- Progress towards objectives –
During on site workshops with local stakeholders, in each of the three national micro-regions of the Trifinio area, were identified (Deliverable 11):
- key stakeholders,
- individual and collective capacities,
- existing networks and alliances.

The "different perceptions and major conflicts" related to water management from a local point of view, in the three watersheds where Sinrem project has been working. It is the result of many workshops with the local stakeholders and representatives of the national institutions, and of many on-field visits of the Sinrem partners.

From the point of view of local actors living in the river basins area or depending of their natural resources, one of the main problems is the contamination of water. And the major cause of contamination is due to the coffee pulp processed by the small coffee producers. This contamination has a very negative impact on water quality for human consumption. Land use changes have also been identified as a problem as the agricultural 'frontier' is extending in natural (forested) areas. The local actors consider that it has several implications, among them the loss of flora and fauna, and more generally a loss of biodiversity in aa area where mountain forests predominate. It has also a large impact on soil erosion.

4.2.B.- Deviations from the project work programme:
No deviations.

4.2.C.- Corrective actions taken
No corrective actions

Task 4.3: On field visits related to natural resource management and use, protected areas, and sustainable practices will be organized for the target groups

4.3.A.- Progress towards objectives –

Different field visit have been organized for targeted group:
- biological process of coffee pulp in pilot farms (Guatemala)
- protected area of Montecristo (support of the Ministry of Environment of El Salvador)

- soil erosion protection in El Salvador (support of Ministry of agriculture)

We organized also meeting between local government of the 3 countries in order to facilitate exchanges of experiences and knowledge between municipalities.

4.3.B.- Deviations from the project work programme:
None

4.3.C.- Corrective actions taken/suggested
None

Task 4.4: Meetings with national stakeholders will be carried out to identify key national processes, policies and instruments which impact locally-identified priority issues

4.4.A.- Progress towards objectives –

The process of decentralization, and in particular the process of Associations of Municipalities has been analized in detail. For each of the 3 country, we identified and caracterized the panel of laws and regulation policies at national level that could be mobilized by the Municipalities to manage natural resources, and water in particular.
Then various meetings were organized with Municipalities and Associations of Municipalities ("mancommunidades") in order to evaluate their knowledge of these different policies and instruments. Even if legal tools are quite similar between the 3 countries, it appears a common problem: these tools are not used or are not known at local level.

4.4.B.- Deviations from the project work programme:
Delayed from 2007 to March 2008.

4.4.C.- Corrective actions taken
None.

WP5 PERIODIC ACTIVITY REPORT

WP5 Objectives

Elaborate a general strategy to tackle sustainable development in transborder areas of Latin America

Document the philosophy, methods, and technologies for, and case studies of, ecosystem management and sustainable development in the Trifinio area.

Elaborate a general strategy to tackle sustainable development in transborder areas of Latin America through general rules concerning access to natural resources, and fora that encourage dialogue about, clarification of, and resolution of environmental issues.

Develop networking between European research centers and national institutions, encouraging community-based solutions to critical regional issues through cooperation among partners, information gathering and sharing, integrated assessments, and demonstration projects.

Define key components of a regional environmental education program that inspires people to take positive action in the stewardship of local and regional resources.

Work initiation: September 2008.

Task 5.1: Support a state-of-the-art, easily accessible information system that facilitates information integration and dissemination, including regional and national institutions and stakeholder inquiry.

5.1.A.- Progress towards objectives –
.We analized the diverse opinions of the population, which was represented by individuals, coffee producers organizations, local governments representatives, national institutions and the communitarian assembly, as well as the fifferent norms and processes of consultation and negotiation occurring in the municipal territory.

Very few people mentioned regular assemblies in order to solve problems and conflicts in their communities. It appeared that within the Municipal governments, there were existing "open spaces" of discussion and negotiation: the 'Open Talk Halls' and 'Associations of Communitarian Development', ADESCOS. The 'Open Talk Halls' ('cabildos abiertos') are considered as an important part of the planning and development processes of the municipality, as they allow a direct participation of the local actors. They are space of consultation and dialogue between the municipal authorities and the inhabitants of the municipal territory, where the inhabitants participate actively to decision making and where they can consider and solved many problems affecting the population.

5.1.B.- Deviations from the project workprogramme:
No deviations to report.

5.1.C.- Corrective actions taken/suggested:
No corrective actions were necessary.

Task 5.2: Provide support for sound nationally and locally-owned sustainable development strategies through broad consultation and fora, and build consensus and political support on strategic plan. Establish a comprehensive set of planning and decision-making processes, and funding.

5.2.A.- Progress towards objectives –

Consultations and fora were mainly organized with 3 types of actors: local targeted groups (associations, municipalities, NGOs…), Central American and European

Universities, National Ministries and international donors. The project was very active in this way, with more than 45 events, and various missions in Europe and Mexico.

Strategic plans were build for each of the river bassin and municipality. And a proposal of Municipal Water Commities was done in El Salvador. These Committees could significantly contribute to the promotion of a culture of management and resolution of conflicts and have relationships with other public or private organisations, educative institutions, ONGs, etc.

At the end of the project, a conference was organized in San Salvador to share results and proposals to national Ministries, Rectors of Central American Universities and internationla donors.

5.2.B.- Deviations from the project workprogramme
No deviations to report.

5.2.C.- Corrective actions taken/suggested
No corrections.

Task 5.3: Link targeted groups, national universities, national and regional institutions and European research centres, and maintain a communications program that builds an awareness of the transborder area. **Identify long term education programs in partnership with European centres** by promoting European fellowships, for Latin American students and professionals, future academics and decision-makers in their own countries.

5.3.A.- Progress towards objectives –
A MOU was signed between the 'Consejo Superior Universitario Centroamericano' (part of the 'Sistema de Integracion Centroamericano' – SICA) and the 2 European partners: CIRAD and UCLM.
A master cursus (maestria) in "geomatic and environment" was created in the Universidad de El Salvador (UES), with the support of Universidad Politechnica de Madrid, following a Sinrem mission to Madrid of one of the Salvadorian professor. A trinational "doctorado" on "Management of transbordering regions" has been designed and proposed to the EU (AlfaIII). This project has not been accepted by AlfaIII, and partners are looking for financial support with bilateral cooperation (Spain, Germany, France).

5.3.B.- Deviations from the project workprogramme:
None.

5.3.C.- Corrective actions taken
None

Section 3: Consortium management

The project management activities is included and described in **WP1** activities. Suffices to mention the following :

Project management team :

Overall coordinator, Montpellier - France: Dr. Jacques IMBERNON
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Secretary, Montpellier - France: Ms. Marie-France CHAZALETTE
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Financial officer, Montpellier: M. Didier GOUT
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Communications and meetings:

Project management was conducted efficiently, following pre-selected communication channels. The principal project management + WP leaders meetings including the following. Management meeting minutes are available from the project website http://inco-sinrem.cirad.fr/:

1 September management team meetings in Esquipulas – Guatemala, September 2006.
2 Project mgmt + leaders meeting, Esquipulas – Guatemala, February 2007
3 Project mgmt + leaders meeting, Esquipulas – Guatemala, July 2007
4 Project mgmt + leaders meeting, Esquipulas – Guatemala, August 2007
5 Project mgmt + leaders meeting, Esquipulas – Guatemala, December 2007
6 Project mgmt + leaders meeting, Esquipulas – Guatemala, October 2008
7 Project mgmt + leaders meeting, Esquipulas – Guatemala, January 2009
8 Project mgmt + leaders meeting, Esquipulas – Guatemala, February 2009

Comments on planning and Status bar-chart (next page)

The chart includes the reprogrammed deliverables deadlines (DOW of the extended project).
In general, project activities have progressed satisfactorily during the project..
The most important (for the project progress) outputs have been delivered on time or with very short delay.
Some substantial delays are found essentially with the deliverables related to training and capacity building and with the data base on Internet (map-server on the web). This has relatively few negative repercussions on overall project progress.

Workpackages - Plan and Status Bar chart

Months		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
WP1 : Coordination & Networking																															
Coordinator	CIRAD		█							█			█														█				
Participants	Trifinio		█							█																	█				
Delivrables	Planning & monitoring website		D1																												
	Steering Committee Reports									D2																D2					
	Annual & final reports												D3																	D3	
Milestones/Results	Inception Meeting		M1																												
	Internet dev. & on field communic.		M2																		M2										M2
	Steering Committee									M3																			M3		
	Monitor networking		M4							M4												M4							M4			
WP2 : Training and capacity building																															
Coordinator	UCLM			█	█																										
Participants	USAC			█	█		█			█																					
	UAH			█	█		█			█																					
	UES			█	█		█			█																					
	CIRAD			█	█																										
	Trifinio			█	█																										

Category	Item	Timeline
	CCAD	(filled cells)
Delivrables	Report on training : programs, …manuals	D4
	Reports on workshops	D5 ... D5
Milestones/Results	Training session for universities	M5 M5
	Workshops	M6 ... M6
	Network of academic partners, etc.	M7

WP3 : Data mining, delivering and sharing

Category	Item	Timeline
Coordinator / Participants	USAC	(cyan cells)
	UAH	(yellow cells)
	UES	(green cells)
	Trifinio	(purple cells)
	CIRAD	(red cells)
	UCLM	(brown cells)
	CCAD	(blue cells)
Delivrables	State-of-art on information & knowledge	D6
	Informations access on web server	D7
	ID of missing data & priorities	D8
	New data collection	D9 D9 D9
	Information system	D

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	available							10									
Milestones/Results	Report about state of art			M8												
	Workshops				M9											
	Participatory mapping					M10										

WP4 : Consultation & negotiation spaces, and processes consolidation

		Timeline
Coordinator	Trifinio	(purple bars)
Participants	USAC	(cyan/teal bars)
	UAH	(yellow/orange bars)
	UES	(green bars)
	CIRAD	(red)
	UCLM	(dark red)
	CCAD	(navy)
Delivrables	ID of stakeholders, … existing networks etc.	D11
	ID of perceptions, conflicts, …	D12
	National processes, policies a instruments	D13
Milestones/Results	Meetings & interviews	M11
	consultation & workshops	M1 ... M1 ... M1

					2											2				2				
	on field visits				M 1 3											M 1 3								
	meetings with nat & reg. Institutions				M 1 4															M 1 4				
WP5 : Strategic Planning																								
Coordinator	CIRAD																				■			■	■
Participants	Trifinio																				■			■	■
	USAC																					■		■	
	UAH																					■		■	
	UES																					■		■	
	UCLM																						■		■
	CCAD																							■	
Delivrables	doc on consultation & nego processes																				D 1 4				
	Synthesis about consultation a fora																								D 1 5
	stratégic plan																								D 1 6
Milestones/Results	presentation of document																				M 1 5				
	workshop on strategic planning																								M 1 6
	edition of strategic																								M

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workplan																														17