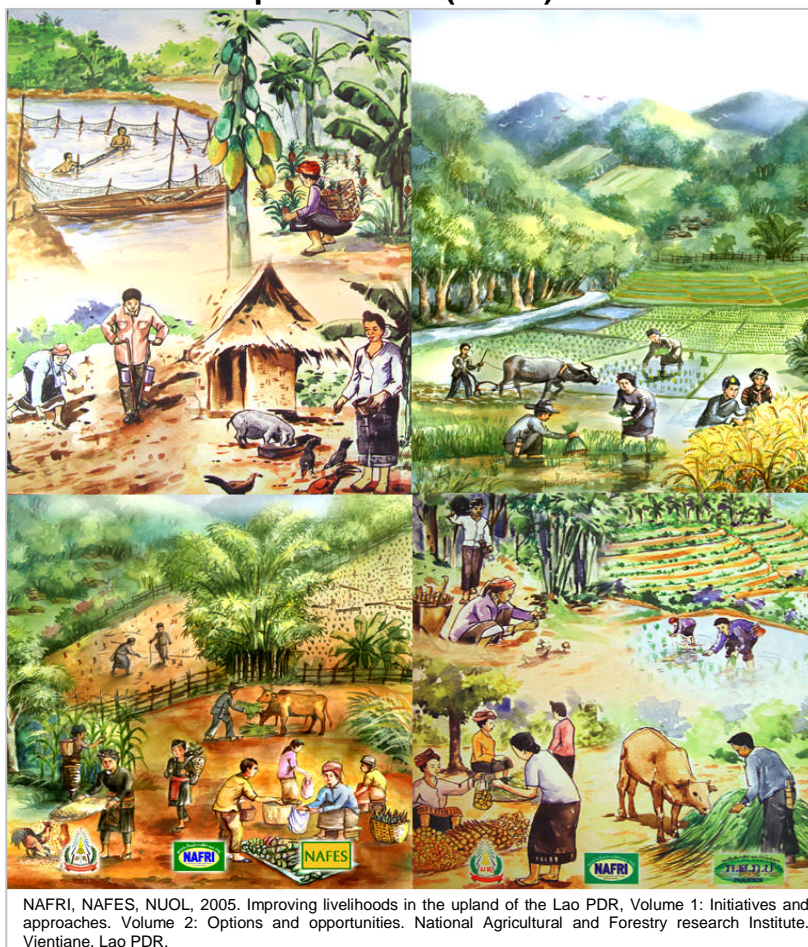




European Commission

Asia-Invest II Programme

Call for Proposals 2005 (Part 2) ref. 122452



Grant Application Form

Budget line 19.1002

Name of applicant:	Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)
--------------------	---

Dossier No	
------------	--

(for official use only)

I. THE ACTION.....	1
1. Description.....	1
1.1 Title.....	1
1.2 Location(s).....	1
1.3 Amount requested from the European Commission	1
1.4 Summary	1
1.5 Objectives.....	2
1.6 Justification	3
1.7 Detailed description of activities.....	7
1.8 Methodology	19
1.9 Duration and action plan	25
1.10. Logical framework	28
2. Expected results.....	29
2.1 Expected impact on target groups	29
2.2 Publications and other outputs	30
2.3 Multiplier effects.....	31
2.4 Short- and long-term impact	31
3. Budget for the action.....	33
4. Expected sources of funding.....	37
II. THE APPLICANT	38
1. Identity	38
2. Bank details	38
3. Description of applicant (one page maximum)	39
3.1 When was your organisation founded and when did it start its activities?.....	39
3.2. What are the main activities of your organisation at present?.....	39
3.3. List of the management board / committee of your organisation.....	40
4. Capacity to manage and implement actions	41
4.1. Experience of similar actions	41
5. Other applications made to European Institutions, the European Development Fund (EDF) and EU Member States.....	67
5.1 Grants, contracts and loans obtained over the last three years from European Institutions, the EDF and EU Member States	67
5.2 Grant applications submitted (or about to be submitted) to European Institutions, the EDF and EU Member States in the current year:	68
III. PARTNER(S) OF THE APPLICANT PARTICIPATING IN THE ACTION.....	70
1. Description of the partner(s)	70

I. THE ACTION

1. Description

1.1 Title

Project Title: **Open Resource on Conservation Agriculture for Trade and Development (ORCATAD)**

Type of project: Institutional Reinforcement

Asia-VENTURE

Asia-INTERPRISE

Asia-Invest TECHNICAL ASSISTANCE

Asia-Invest ALLIANCE

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>

1.2 Location(s)

Lao PDR

1.3 Amount requested from the European Commission

Total eligible cost of the action	Amount requested from the European Commission	% of total cost of action
315.800 EUR	300.000 EUR	95 %

1.4 Summary

The action aims to enhance the **export capabilities** of Lao PDR in **eco-friendly** cash crops promoting **best practices in conservation agriculture** aided by modern Information and Communication Technologies furthering the integration of Lao PDR in to the global **information society**. The action aims also at **reinforcing institutional capabilities** of the intermediary business organisations such as LNCCI (Lao National Chamber of Commerce and Industry) by focussing on the **niche market and new business opportunities** for eco-friendly agriculture related products in the international market. The **target groups** are the a) **farmer groups and extension services** on one hand and b) the **small and medium agro-based enterprises and intermediary business organisations** on the other. The action aims at building a **knowledge base** of best practices in conservation agriculture for a certain number of eco-friendly cash crops. Additionally this knowledge base will contain **training modules** on these practices addressed towards the farming community and the extension services. The action spanning **30 months** will draw from the local knowledge and IT&C capacities of the Asian partner **NAFRI – Lao PDR**, the valuable agronomic expertise from **CIRAD- France^{1,2}**, and the communication expertise from **Wageningen University – The Netherlands³**. This partnership will strengthen the existing EU-Asia cooperation.

¹ See <http://www.cirad.fr/> for more details about Cirad

² See <http://agroecologie.cirad.fr> for more details about Conservation Agriculture practices developed by Cirad and its partners

³ See <http://www.cis.wur.nl/uk> for more details about Wageningen University and Sub-department Communication Science

1.5 Objectives

The project aims to:

- To enhance the **export capabilities of Lao PDR** in the cash crops sector with specific attention to the eco-friendly products, the action envisages a healthy environment for the new international business opportunities for small and medium agro-based enterprises in Lao PDR
- To improve the **quality of services** of the intermediary business organisations in Lao PDR related to trade and commerce, such as the Foreign Trade Department and National Chamber of Commerce and Industry of Lao PDR, enunciating better trade relations and establishing best practices of trade between Europe and Asia
- To facilitate the **integration** of Lao PDR into the fast pacing global **information society** by demonstrating through this action, the implementation of IT&C solutions on the internet, accessible to the whole international community
- To promote and develop **Open Source based IT&C solutions** that can be utilised to improve the functional efficiency of intermediary business organisations of Lao PDR
- To build further and **strengthen** on the existing **relationships** between **European and Asian** partners through the organic exchange of know-how in the areas of conservation agriculture, communication and trade and development

The specific objectives of the action are:

- To build a **comprehensive and open knowledge base** on best practices in conservation agriculture for certain cash crops such as rice (varieties with long grains, sticky and/or aromatic rice varieties), tea, coffee, if there will be some opportunities (geographical indication network) to develop these two crops in the mountainous areas of Xieng Khouang Province... This knowledge base will be developed as a **web-based application** and will serve as an effective tool in the hands of business organisations to encourage the production of eco-friendly agro-products targeted towards a niche market in Europe, specifically in France, thus helping to create a vibrant international and rural economy,
- To organise **capacity building activities** for the farmer groups and extension services of Lao PDR on conservation agriculture techniques
- To **coordinate** with the **trade facilitation agencies** such as LNCCI to improvise application of new techniques and technologies, in both conservation agriculture and IT&C for the areas of trade and development
- To build **model demonstration plots** which will substantiate the scope for trade in the produced crops both for international and local market
- To build **capacities at the institutional level** in open source based IT&C solutions with sharp focus on the application of **IT&C to agronomy** and relevant beneficiary sectors like **trade and commerce**
- To increase the **awareness levels** about the potential for **international trade and investment** in the area of **eco-friendly agro-based products** with specific focus on commercially significant crops, through two dissemination workshops, one in the target country and the other in Europe
- To produce **dissemination** material focussing on the **prospects for international trade in eco-friendly agro-based products** in the form of booklets, brochures and exhibits and highlighting the importance of conservation agriculture

a) relevance of the action to the objectives of the programme

The project aims to enhance the export capabilities of Lao PDR by building up a knowledge base on conservation agriculture practices. This knowledge base will serve as an effective tool in the hands of intermediary business organisations and small and medium enterprises to encourage local production of eco-friendly agricultural products for international market. This IT&C exercise of creating a comprehensive and an open source based knowledge base made available online will phenomenally improve the quality of services rendered by intermediary business organisations both to local and international players and will also facilitate the integration of Lao PDR in the global information society. The project also aims at reinforcing the institutional capabilities of intermediary business organisation such as the LNCCI (Lao National Chamber of Commerce and Industry), by envisaging niche and new business opportunities for small and medium agro based enterprises in eco-friendly products. This knowledge base will be built with the networking of European institutions (CIRAD, France and Wageningen University, Netherlands) and Asian counterpart (NAFRI, Lao PDR) facilitating an exchange of know-how in the areas of Information Technology and Agronomy applied to trade and development.

b) relevance of the action to the priorities of the programme

The action envisages creating a knowledge base on conservation agriculture to produce eco-friendly agriculture products, thereby emaciating new business opportunities for local and European small and medium agro enterprises in this sector. The knowledge base will contain information on the best practices on conservation agriculture techniques for certain market oriented cropping systems. The action envisions capacity building activities for the farmer groups and extensions services enabling them to adapt conservation techniques in farming resulting in a sustainable production of eco-friendly agro products. This will also raise the awareness about the possibilities for improving mutual trade relations with Lao PDR in the core area of agriculture, particularly from Europe which has evinced keen interests in strengthening trade relations with Lao PDR. The intermediary business organisations from Lao PDR can make use of the knowledge base to promote



private sector initiatives in agro based enterprises. Concentrated efforts on specific focal areas which will illustrate the potential for new business opportunities need to be undertaken. Hence the creation of such a knowledge base on the longer run would also mean a sustained information link between the various groups like farmers, researchers, extension services and on the other hand business organisations, both local and international players. This approach of using IT&C with agronomic sciences as base with application to market oriented trade and development will help fortify the capacities of the trade facilitation agencies in Lao PDR. On the longer run such an effort would also serve as a platform for integration of Lao PDR into the global information society.

c) identification of perceived needs and constraints in the target countries or regions

With an estimated per capita income of US\$390 in 2004⁴, the Lao People's Democratic Republic (Lao PDR) is one of the poorest countries in East Asia. It is classified by the UN as a Least Developed Country (LDC). In 2004, 71 percent of its population lived on less than US\$2 a day, and 23 percent on less than US\$1 a day (see East Asia Update, World Bank, 2005).

Lao PDR has a population of around 5.8 million and a land area of 236,800 square km. It has significant natural resources like forestry, minerals and hydro-electric power. Agriculture is the major sector contributing 51 percent of GDP and employing 80 percent of the labor force; the industry accounts for 23% and services for 26%.

The Government introduced the "New Economic Mechanism" (NEM) in 1986, to begin the transition from a centrally planned to a market-oriented economy. Gradually, price controls were removed, socialist cooperative farming abandoned as farmers were allowed to work on their plots and take ownerships, the exchange rate system was unified, government's monopoly on trade removed, the number of state-enterprises reduced, and establishment of private firms allowed.

Reforms stalled during the regional crisis, as Lao struggled with serious macroeconomic problems. Successful stabilization began in 2000 and structural reforms revived in 2001.

The Lao economy is to a large extent informal, with important black market and unrecorded cross-border trade activities. Exports of agricultural products remain only at around 3 percent or about US\$26 million. Lao export markets remained concentrated in a few countries: ASEAN (Thailand, Vietnam), China, Japan, Australia, Korea and the EU. Export dependency on a few markets and a few commodities makes Lao vulnerable to external conditions.

In the first part of the 1990s, Lao experienced high export growth rates of around 21 percent per year; since the Asian crisis in 1997; however, Lao exports (and imports) have been decreasing or, at best, stagnating. Even though the Government is seeking ways to diversify the Lao economy, 80 percent of official Lao exports remain concentrated on two items going to two major destinations: electricity for Thailand and textiles for the European Union; outside electricity, nearly 80 percent of Laotian exports to Thailand consist of wood products. This makes the country very vulnerable to external conditions. And there is reason for concern. Given Lao's



dependence on exports to Thailand, external trade was severely damaged by the Asian crisis—exports nets of re-exports fell by 10 percent in 1997, as a result of a fall in exports of wood products of almost 30 percent and a fall in manufactured exports of 45 percent. Duty free and quota free access of garment exports to the EU has been crucial to the development of the garment industry.

As noted aptly in the EC - Lao Country Strategy Paper 2002- 2006⁵ under the Lao PDR Policy Agenda,

"Agriculture will remain the backbone of the national economy, even if the objective is to reduce its share of GDP from 51.3 % to

36.6 % by 2010. The sector is to be developed in an integrated manner and linked with the food processing industry. Each region/province will be responsible for preparing local development plans

⁴ Lao PDR Economic Monitor, world Bank, April 2006

⁵ http://europa.eu.int/comm/external_relations/lao/csp/index.htm

for the agriculture/forestry sector based on its own potential. Particular programmes are to be implemented in support of food and cereal production (particularly rice), animal husbandry and fishery to increase food security and for possible export. Commercial and cash crops, production of coffee, tobacco and wood products, will be boosted for domestic consumption and for exports.....The overall strategy aims to promote further intensification and commercialisation of agricultural systems in the lowland areas close to the Mekong. Simultaneously, it also calls for greater emphasis to be given to the upland areas than in the past."

The gradual integration of the developing countries into the world economy is a major objective of EC development co-operation. The EC has identified the need to inter-link trade policy and development policy in order to achieve objectives related to poverty reduction. As agriculture continues to occupy a central role in development strategy and there is a need to promote the conservation agricultural practices thereby fostering growth in sustainable agricultural production.

Economic development in Lao PDR has concentrated on a few, more accessible parts of the country close to the Mekong River, and has largely by-passed the upland areas. Upland communities are considerably disadvantaged in terms of their access to infrastructure and to basic health and education facilities. With limited income earning opportunities and very limited access to markets, they are often locked into low productivity, subsistence and slash-and-burn agriculture. Farming systems in Lao PDR have changed drastically over the past 15 years. In some areas, where the market forces are prevalent, shifting cultivation systems have given way to more conventional agricultural systems. In other remote areas, the traditional swidden system



with long rotation has been put under considerable pressure due to modification on land access and increasing population. In southern Xayabury, for instance, from where there is access to Thai market, land preparation is now based on burning residues and ploughing on steep slopes. Because of environmental and financial costs, farmers are shifting to herbicides, which lead to chemical pollution, while crop residues and weed mulch are usually burned thereby increasing mineral losses, soil erosion and fertility loss. In mountainous areas, the rationale of shifting cultivation is collapsing as farmers use land for longer periods of cropping and returning more frequently to each field.

A common feature of most agricultural practices is that soil organic matter stocks are depleted and this results in an increased risk of erosion and a significant decrease of biological activity and in fine a significant decrease of production. Soil fauna communities are greatly reduced in annual cropping systems. Organic matter and biological activities which are natural

resources, are poor in the most conventional agro-ecosystems. Many studies have showed a strong impact of soil fauna on soil fertility (chemical fertility and production) and a significant impact of plant covers (DMC) on soil fauna diversity and activities. But these results came from studies which took place mainly in natural ecosystems. Eco-friendly practices (DMC) through their litter and roots produced, increase soil organic matter stocks and soil fauna activities.



The current need of Lao PDR is to develop a holistic approach in agricultural development vis-à-vis trade and development, with focus on conservation techniques which can be replicated inexpensively at a large scale and which are also compatible to local farmer's conditions. Unless there is such an approach which is well established and demonstrated amply, Lao PDR's growth in agricultural sector will continue to witness stagnated trend and will not be able to increase the percentage of exports in agriculture sector on the long run.

The Government of the Lao PDR has also recognised this fact and has decided to promote conservation agricultural practices in the country. It has issued an official decree signed by the Council of Ministers to all the provincial administrations to promote these alternative practices. In that decree (Cabinet Council of Ministers, Ref: 554/CCM.DC) it has aptly noted that “.....1) *Promotion and diffusion of Direct Seeding and Mulch based Cropping (DMC) systems and integrated into the production system of Laos.....and 2) Integration of the alternative DMC based approaches into the curriculum of the agricultural academic institutions of the country.*” It is in this context of need that the proposed action wishes to capitalise on the State's willingness to promote alternative eco-friendly agricultural practices. By developing and deploying a knowledge base on conservation agriculture for Lao PDR would be of immense use both in terms of increasing production and also for trade and development.

d) list of target groups and estimated number of direct and indirect beneficiaries

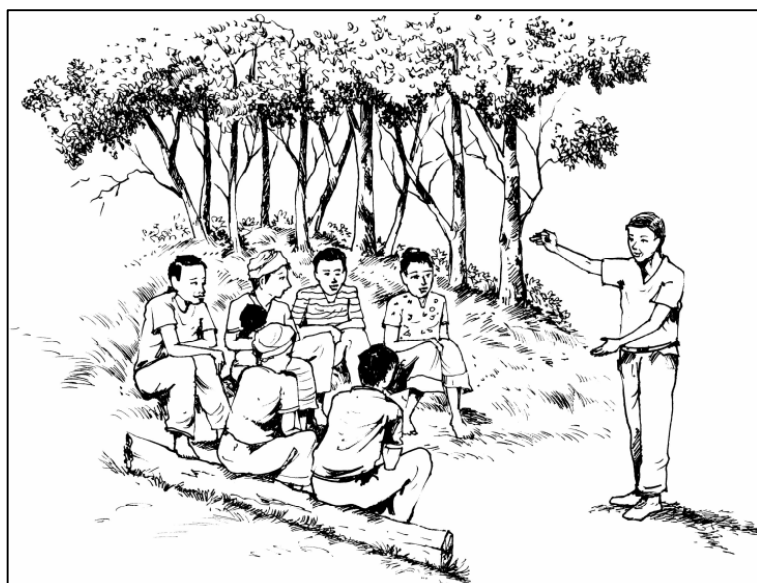
The target groups for the action are:

- farmer groups and extension services of Xayabury (Mekong Corridor) and Xieng Khouang Provinces (mountainous ethnics minorities), and
- the small and medium agro-based enterprises and intermediary business organisations

The farmer groups and extension services will be trained on the conservation agriculture techniques in periodic training sessions. This experience will contribute towards building the knowledge base itself. The direct beneficiaries of the knowledge base and the various dissemination activities will be the small and medium agro enterprises, the intermediary business organisations such as LNCCI and the trade and commerce department of Lao PDR.

The indirect beneficiaries of the knowledge base will be the Agriculture Department of Lao PDR which can widely adopt such technologies in future and the larger international trading community, both public and private sector players who are interested in agro-based trade with Lao PDR, in particular from South East Asia and Europe.

e) reasons for the selection of the target groups and activities



The farmers of Lao PDR are the ones who need to be educated immediately about the advantages of the conservation agriculture techniques. As direct practitioner of this vocation, their improved knowledge about these techniques will help them to increase productivity in the longer run. The extension services, as essential they are to any agriculture related enterprise to succeed need to be trained in conservation techniques so that they can take forward such techniques in a sustained fashion to the future. With the participation of extension services, one can ensure that the impact of the action can go beyond the project period.

The small and medium enterprises and the trade facilitation agencies such as LNCCI and Departments of Trade and Commerce need to be addressed as part of the action so that they are made aware of the potential for vibrant and fair trade in agricultural sector. These agencies will prove to be catalysts for trade and development in relation to the agricultural sector. By providing free flow of information about the scope for trade in agro-based enterprises, the action will also help the trade facilitation agencies such as the LNCCI, the Ministry of Commerce to offer better services to their own target audiences. At present there have been minimal efforts from these agencies to project the opportunities for trade in agriculture. This will bring in a larger scope to the perspective of the action and will enormously help in the sustainability of the action.

f) relevance of the action to the target groups

Assistance to trade and investment, promoting the integration of Lao PDR in the international trading community through IT&C tools is a potential area that yet needs to be explored locally. Also there is a great potential to nurture and develop local businesses if proper information flow can be ensured. The farmer groups and the extension services can greatly benefit from learning about new techniques in conservation agriculture. This will enable them towards a better sustainable future with consistent production of eco-friendly agro based products for both local and international consumption. Such an approach will ensure that the local economy gets strengthened and opens up avenues for rapid investments in agriculture. Capacity building of the staff of the extension services will ensure that the action leaves a long lasting impact on how agriculture will be practised in the future in Lao PDR.



The local trade facilitation agencies can readily make use of the knowledge base to promote initiatives in agro based industries. Intermediary Business organisations can identify and promote such SME's in Lao PDR who vie for the export markets in Europe on eco-friendly agricultural products. Making the knowledge base available online will provide an impetus to commerce in agriculture and greatly help agencies such as LNCCI, Ministry of Commerce, and Foreign Trade department to promote and hone small-rural enterprises in agriculture.

The larger international trading community, mainly European SME's and also the South East Asian business organisations, can capitalise on the knowledge base to identify potential areas for market linkages, investments and also partners.

At the target country level, a survey of initiatives in promotion of trade in eco-friendly products will be made prior to the first trade dissemination seminar in Lao PDR. The help of Ministries of Commerce and Agriculture will be sought to identify such initiatives. This exercise of organising a seminar in the target country will help find synergy with similar projects and also will help better dissemination of this action as well.

Designing the knowledge base in Open Source using Linux as operating system, PHP and MySQL on the web-server, also has significance in terms of promoting open source culture in the region. Developing skills in open source in the target country would help them on the longer run. Developing an in-house IT&C application for agronomy, trade and development would help build the capacities within Lao PDR.

1.7 Detailed description of activities

The ORCATAD project aims to enhance the export capabilities of Lao PDR in the eco-friendly agricultural products by implementing a knowledge base on conservation agricultural practices. The project will also indulge in capacity building activities for farmers and extension services so that tangible and sustainable outcomes can be achieved. ORCATAD will also engage in communication

and dissemination activities so that the results of the action can be well founded with the various stakeholders. The action will comprise of five main overlapping activities:

Activity 1: Project launch, preparation of a website and selection of field areas

Activity 2: Implementation of Conservation Techniques

Activity 3: Training of farmers and extension workers

Activity 4: Building of the knowledge base

Activity 5: Communication and Dissemination Activity

Activity	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30
1										
2										
3										
4										
5										
	Launch Workshop Lao PDR			Trade Seminar 1 Lao PDR			Trade Seminar 2 France			Final WKS Lao PDR

ACTIVITY 1: Project launch, preparation of a website and selection of field areas

Objectives

The aim of this first activity is to open a website which will disseminate information on the project, including soft and hard ware about conservation agriculture techniques to build a comprehensive and open knowledge base on best practices in conservation agriculture for certain cash crops. This knowledge base will be developed as a web-based application and will serve as an effective tool in the hands of business organisations to encourage the production of market oriented cash crops creating a vibrant international and rural economy A first workshop will be organized in Lao PDR to establish technical description standards and to select the appropriate IT database format.

Activities

a) *Open the project website:*

Create an efficient tool of communication on the **Orcatad** project through the opening of the project website:

- Disseminating information on the project. The website will focus on providing comprehensive information to potential partners and professionals already involved in development projects. Web pages will show the objectives of the programme.
- Disseminating technical information on the conservation cropping and farming systems. This information will be provided by Activity 2 (Implementation of conservation techniques).
- Internal services to support national activities and to share knowledge and know how

b) *Open the project e-forum:*

Promote interactive discussions by opening an e-forum for the partners and other interest groups.

c) *Bibliography*

A preliminary review of the bibliography related to conservation agriculture techniques and to communication issues (use of ICTs), in others countries and capitalization of the works made in Asia and in particularly in Lao PDR.

Redaction of leaflet, synthesis, publication of key documents related to specificity of conservation agriculture and its impacts at local, regional, national and international level.

d) *Prepare and organize an initial workshop in Lao PDR*

The first workshop of the project will be held for a period of 5 days. It will be the first meeting of all the partners. Discussions will be held to agree on a first draft of the list of conservation Agriculture

techniques in the area where the project work will be carried out. Prior to the meeting, the partners will have already prepared a number of propositions that will be assessed during the meeting in order to reach a common agreement. The focal theme of the workshop, however, will be to discuss the logical data format of the description of conservation agricultural techniques. Guidelines will be prepared for the description of the cropping systems. These data will be available for use in Activity 3, (training of farmers and extension services):

The types of information given to describe the cropping systems and their areas of application (socio-economical and biophysical conditions)

Results

This first activity will result in the standard description of cropping systems in close interaction with activity 2 and 3. The website and the e-forum will be the centres of exchange for the partners of the project.

External linkage to promote and to extract information from the world community. It is also a tool for accelerating the design of the training activities to the benefit of extension services, farmers, researchers.

Resources involved in this activity

A. Personnel	Activity	Description	Number of units
NAFRI (Software Developer)	1a	Open the website	5 man/day
NAFRI (Technician)	1a	Open the website	5 man/day
NAFRI (Technician)	1a	Open the website	5 man/day
NAFRI (Software Developer)	1b	Implementing e-forum	5 man/day
NAFRI (Technician)	1b	Implementing e-forum	5 man/day
NAFRI (Technician)	1b	Implementing e-forum	5 man/day
Project Manager Applicant	1c	Prepare bibliography	5 man/day
Cirad Senior Expert	1c	Prepare bibliography	5 man/day
WU Senior Expert	1c	Prepare bibliography	5 man/day
NAFRI (Trainer)	1c	Prepare bibliography	5 man/day
NAFRI (Agronomist)	1c	Prepare bibliography	5 man/day
Project manager Applicant	1d	Prepare Workshop	5 man/day
NAFRI (Software developer)	1d	Prepare Workshop	5 man/day
NAFRI (Technician)	1d	Prepare Workshop	5 man/day
NAFRI (Technician)	1d	Prepare Workshop	5 man/day
Project Manager Applicant	1d	Participate in the workshop	5 man/day
NAFRI (Software Developer)	1d	Participate in the workshop	5 man/day
NAFRI (Trainer)	1d	Participate in the workshop	5 man/day
NAFRI (Agronomist)	1d	Participate in the workshop	5 man/day
WU Senior Expert	1d	Participate in the workshop	5 man/day
CIRAD Senior Expert	1d	Participate in the workshop	5 man/day
NAFRI Technician	1d	Participate in the workshop	5 man/day
NAFRI Technician	1d	Participate in the workshop	5 man/day

Total : 115 man/day

B. Equipment and running costs

IT equipment:

Personal Computers, laptop and peripherals 1 kit at € 1,500	€	1,500
---	---	-------

Travel Flights:

1 Europe / Asia at € 1,200	€	1,200
1 Asia-Asia	€	250

Running Costs:

Car Rental 5 days at 60 €	€	300
Bibliography	€	500
Translation	€	1,000
Costs of conferences/seminars	€	2,000

Time schedule

See beginning chapter 1.7. This remark also applies to the time schedules for all other activities.

ACTIVITY 2: Implementation of conservation techniques

Objectives

The second activity aims in the first hand to develop alternative techniques on conservation agriculture. This activity will also build eco-friendly plots for demonstration. In the second hand the quality of this practice will be studied by its impact on soil environment. Results from these two works will be fed into the knowledge base.

Activities

a) Bibliography:

A critical review of existing information on these practices will be done. This will be specifically focused on its impact on the environment and in particularly on the biotope.

b) Establishing demonstration plots:

This activity will be done in different ecological systems and in farmer fields where experiments based on eco-friendly techniques will be adapted based on climatic, bio-physical and socio economic contexts. Different main annual crops will be studied. These experimental fields will be also a demonstrating plot for the interested audience. The space for the demonstration plots and their maintenance will be the contribution of the NAFRI.

c) Verifying eco-friendly products through chemical and biological soil quality:

In parallel, these practices have also for objective to protect the environment. Soil is a very good indicator for the health of environment related to agricultural practices. To evaluate the positive impact on the soil environment (chemical and biological parameters), it is important to study these impacts on soil biology. The biodiversity of soil fauna and the intrinsic quality of the litter will be studied by:

- Sampling of soil fauna for identification (300 samples)
- Sampling of soil for chemical analyses
- Sampling of litters to analyse their chemical intrinsic quality

d) Finalise recommendations for the knowledge base:

The recommendations for the building up of the knowledge base will be made periodically based on the lessons learnt from field experiments. This continuous process of enriching the knowledge base

will also be complemented by Activity 3. At the end of this activity, the final recommendations on conservation agricultural practices will be made for the knowledge base.

Results:

This second activity will develop eco-friendly techniques for conservation agricultural practices and for various eco-systems with demonstrating plots to the target groups. In parallel we will be able to characterize the eco-friendly quality by its positive impact on soil environment (chemical and biological factors). The results of this activity will form the core of the knowledge base.

Resources involved in this activity

A. Personnel	Activity	Description	Number of units
Project Manager Applicant	2a	Prepare bibliography	5 man/day
CIRAD Senior Expert	2a	Prepare bibliography	5 man/day
NAFRI (Agronomist)	2a	Prepare bibliography	5 man/day
Project Manager Applicant	2b	Demonstration plots	5 man/day
CIRAD Senior Expert	2b	Demonstration plots	5 man/day
NAFRI (Trainer)	2b	Demonstration plots	20 man/day
NAFRI (Agronomist)	2b	Demonstration plots	100 man/day
NAFRI (Technician)	2b	Demonstration plots	20 man/day
Project Manager Applicant	2c	Ecofriendly products	21 man/day
NAFRI (Trainer)	2c	Ecofriendly products	20 man/day
NAFRI (Agronomist)	2c	Ecofriendly products	40 man/day
NAFRI (Technician)	2c	Ecofriendly products	10 man/day
WU Senior Expert	2d	Information for KB	15 man/day
Project Manager Applicant	2d	Information for KB	5 man/day
NAFRI (Trainer)	2d	Information for KB	10 man/day
NAFRI (Agronomist)	2d	Information for KB	25 man/day
NAFRI (Technician)	2d	Information for KB	20 man/day

Total : 331 man/day

B. Equipment and running costs

Equipment and supplies:

Instuments for macrofauna identification and quantification (2 stereo-microscopes and 1 digital balance)

€ 2,400

Travel Flights:

4 Asia/Asia at € 250: € 1,000

Running costs:

Soil analyses:	300 at 73 €	€	21,900
Bibliography		€	500
Car Rental 10 days at 60 €		€	600
2 Local Transportation at 400 €		€	800

pm: Demonstration plots maintenance, space and running costs: NAFRI contribution

ACTIVITY 3: Training of farmers and extension services**Objectives**

The aim of this activity is to support and reinforce the existing training organizations with specific focus on conservation agriculture. The conservation agriculture techniques, specifically, those relating to direct sowing and cover crops are new and it is necessary to define new training modules for promotion and extension of these eco-friendly cropping systems.

Activities**a) Prepare multimedia documents**

The training of the target groups will consist of modules like reinforcement on general agronomy, holistic and integrated approach on agro-systems, guiding principles on conservation agriculture, in particularly DMC and illustrated examples of DMC from the demonstration plots of the action.

b) Training of trainers

Initially the training will focus on the trainers from MAF and NAFES. Based on the feedback collected from the trainers, the improvements on the design and the organization of the content of the training modules on conservation agriculture will be implemented. The improved versions will be subjected to testing and feedback until a satisfactory response level is reached.

c) Farmers and extension workers Fields Schools

Practical training on specific topics will be provided to the farmers and the staff of the extension services. Organised by NAFRI, as contributively to the action, technical training through demonstration plot units located on selected sites representing socio-economic and biophysical diversity, devoted to technicians, extension specialists, development agents and farmers. Systematic feed back will be generated at the end of the training sessions so that the appropriateness of the knowledge base can be studied and thereby improve the knowledge base itself.

d) Fields visits

To create better awareness on environmental impacts of conventional agriculture (agricultural externalities) compared with eco-friendly cropping and farming systems (sensitization) targeted towards farmers, extension workers, Rural Development Project managers and policy makers.

Results

Production of full-fledged training modules, leaflets, synthesis, and publication of key documents related to advantages of conservation agriculture and its impacts at local, regional national and international level

Contribution to building up and refining of Knowledge base and E-learning activities combined with "thematic fora" and a web site

New training modules on conservation techniques for different target groups

Sensitization of policy-makers, decision-makers both in agriculture, education, research and trade and development about the alternative techniques like DMC cropping systems.

Resources involved in this activity

A. Personnel	Activity	Description	Number of units
Project Manager Applicant	3a	Prepare documents	5 man/day
NAFRI (Trainer)	3a	Prepare documents	20 man/day
NAFRI (Agronomist)	3a	Prepare documents	10 man/day
NAFRI (Technician)	3a	Prepare documents	70 man/day
Project Manager Applicant	3b	Training of trainers	5 man/day
CIRAD Senior Expert	3b	Training of trainers	5 man/day
WU Senior Expert	3b	Training of trainers	10 man/day
NAFRI (Trainer)	3b	Training of trainers	80 man/day
NAFRI (Agronomist)	3b	Training of trainers	20 man/day
NAFRI (Software Developer)	3b	Training of trainers	10 man/day
NAFRI (Technician)	3b	Training of trainers	10 man/day
NAFRI (Technician)	3b	Training of trainers	10 man/day
WU Senior Expert	3c	Farmers Fields Schools	5 man/day
Project Manager Applicant	3c	Farmers Fields Schools	5 man/day
NAFRI (Trainer)	3c	Farmers Fields Schools	50 man/day
NAFRI (Agronomist)	3c	Farmers Fields Schools	10 man/day
NAFRI (Technician)	3c	Farmers Fields Schools	10 man/day
NAFRI (Technician)	3c	Farmers Fields Schools	10 man/day
Project manager Applicant	3d	Fields Visits	5 man/day
CIRAD Senior Expert	3d	Fields Visits	5 man/day
NAFRI (Trainer)	3d	Fields Visits	20 man/day
NAFRI (Agronomist)	3d	Fields Visits	10 man/day
NAFRI (Technician)	3d	Fields visits	10 man/day

Total : 395 man/day

B. Equipment and running costs

IT equipment:

8 Personal Computers, laptop and peripherals kits at € 800	€	6,400
1 Personal Computers, laptop and peripherals kits at € 1,500	€	1,500
2 Video projectors at 1,500 €	€	3,000
1 Video equipment at 3,000 €	€	3,000
2 Photographic equipment at 3,500 €	€	7,000
2 Colour Printers	€	3,500

Running costs:

Car Rental 10 days at 60 €	€	600
Publishing of training modules (booklets, colour brochures, posters)		

500 copies of all modules products	€	4,000
------------------------------------	---	-------

Travel Flights:

1 Europe / Asia at € 1,200	€	1,200
2 Asia/Asia at € 250:	€	500

ACTIVITY 4: Building up of the knowledge base

Objectives

The aim of this activity is to build the knowledge base on conservation agricultural practices. This activity will draw upon the activities 1, 2 and 3 like bibliography, implementation of alternative techniques and the capacity building activities. This will result in the fine-tuned final version of the knowledge base in the form of CD-ROMs and a web version.

Activities

a) *Initial knowledge base on various concepts and practices*

The knowledge base will be launched on the website from the project launch and will contain information on various concepts and practices on conservation agricultural techniques appropriate for the region as a whole. As a result of the bibliographical work, this initial knowledge base will be reformed appropriately. The knowledge base also will present a compilation of trade facilitation agencies and Agricultural Fairs and Exhibitions in Lao PDR and in Europe.

b) *Building of the core of the knowledge base*

The knowledge base launched with activity 1, will be well formulated from the results of the Activity 2, i.e. Implementation of Conservation techniques. This will form the core of the knowledge base drawing lessons from field, from maintaining demonstration plots. This activity will summarise various adaptations of techniques for different ecological contexts.

c) *Enriching the knowledge base*

The knowledge base will go through a continuous process of refinement and enrichment with the implementation of Activity 3, i.e. Training of farmers and extension services. This will provide the necessary inputs to improve the quality and the nature of organisation of the knowledge base. The appropriateness of the knowledge base will be strongly considered and implemented accordingly, with the help of the communication expert.

d) *Final Release*

The knowledge base will be finalised with all the recommendations for conservation agricultural techniques towards the end of the action. The web version will be finalised and the CD-ROM version released.

Results

The main results of the activity are the final versions of the web-based and CD-ROMs of the Knowledge Base on Conservation Agriculture for Lao PDR.

Resources involved in this activity

A. Personnel	Activity	Description	Number of units
Project Manager Applicant	4a	Initial Knowledge Base	5 man/day
CIRAD Senior Expert	4a	Initial Knowledge Base	5 man/day
NAFRI (Software Developer)	4a	Initial Knowledge Base	10 man/day
NAFRI (Agronomist)	4a	Initial Knowledge Base	10 man/day
NAFRI (Technician)	4a	Initial Knowledge Base	100 man/day

NAFRI (Technician)	4a	Initial Knowledge Base	75 man/day
Project Manager Applicant	4b	Building Knowledge Base	5 man/day
CIRAD Senior Expert	4b	Building Knowledge Base	5 man/day
NAFRI (Trainer)	4b	Building Knowledge Base	10 man/day
NAFRI (Agronomist)	4b	Building Knowledge Base	10 man/day
NAFRI (Software developer)	4b	Building Knowledge Base	20 man/day
NAFRI (Technician)	4b	Building Knowledge Base	100 man/day
NAFRI (Technician)	4b	Building Knowledge Base	75 man/day
WU Senior Expert	4c	Enriching Knowledge Base	10 man/day
NAFRI (Trainer)	4c	Enriching Knowledge Base	20 man/day
NAFRI (Agronomist)	4c	Enriching Knowledge Base	20 man/day
NAFRI (Developer)	4c	Enriching Knowledge Base	20 man/day
NAFRI (Technician)	4c	Enriching Knowledge Base	100 man/day
NAFRI (Technician)	4c	Enriching Knowledge Base	75 man/day
WU Senior Expert	4d	Final Release	10 man/day
NAFRI Trainer	4d	Final Release	20 man/day
NAFRI (Agronomist)	4d	Final Release	10 man/day
NAFRI (Software Developer)	4d	Final Release	20 man/day
NAFRI (Technician)	4d	Final Release	165 man/day
NAFRI (Technician)	4d	Final Release	110 man/day

Total : 1010 man/day

B. Equipment and running costs

IT equipment:

1 Personal Computers, laptop and peripherals kits at € 2,600	€	2,600
--	---	-------

Travel Flights: 1 Europe / Asia at € 1,200	€	1,200
---	---	-------

Running Costs:

Car Rental 5 days at 60 €	€	600
CD-ROM publication 1000 copies	€	1,000

ACTIVITY 5: Communication and Dissemination Activity

Objectives

The aim of this activity is to bridge between the various stakeholders of the action. This activity will progress in parallel with other activities to attain the maximum visibility and to create awareness about the trade potential for agro-based SMEs.

Activities

a) Preparation of dissemination materials

The activity will focus on preparing various communicative materials: 1) on the advantages of the conservation techniques over the conventional practices, addressed mainly towards the farming communities and extension services and 2) on the potential for trade in eco-friendly agricultural products for international market, addressed towards the intermediary business organisations and the SMEs. A sound communication strategy will be adopted with help of the communication expert of the action. The communication expert will ensure that the materials are well designed for the target groups all along the project.

b) Organisation of Trade Potential Seminar in Lao PDR:

A trade potential seminar will be organised in Lao PDR to communicate and create awareness about the potential for international trade in eco-friendly agricultural products. It will also cover the importance of conservation agriculture in sustainable production for the improvement of rural livelihoods and poverty alleviation. All the existing and potential SMEs and the trade facilitation agencies, policy makers and members of decision making bodies will be participating in the activity.

c) Organisation of Trade Potential Seminar in Europe (France):

A trade potential seminar will be organised in Europe (Paris, France) to showcase the opportunities for investments and trade with Lao PDR. Care will be taken to coincide this seminar with the International Agricultural Show of France to better disseminate the knowledge base and about the action. Trade facilitation agencies and potential investors from European countries will be invited for this seminar.

d) Organisation of Final workshop, Lao PDR:

A final workshop towards the end of the action will be organised in Lao PDR. This workshop will bring together various stakeholders (primary, secondary and tertiary) on a single platform to disseminate the results of the action. The final versions of the knowledge base in the form of CD-ROMs and the web version will be formally launched in this workshop. Care will be taken to ensure the participation of policy makers from different ministries of Lao PDR.

Results

The result of the activity is a wide-ranging awareness created both in Europe and Lao PDR about the action and knowledge base on one hand and the potential for investment and trade in eco-friendly agricultural products. The broad dissemination in France and Lao PDR will help improve the image of Lao PDR as better destination of investments in agricultural sector.

Resources involved in this activity

A. Personnel	Activity	Description	Number of units
NAFRI (Trainer)	5a	Dissemination materials	10 man/day
NAFRI (Agronomist)	5a	Dissemination materials	10 man/day
NAFRI (Software Developer)	5a	Dissemination materials	5 man/day
NAFRI (Technician)	5a	Dissemination materials	10 man/day
NAFRI (Technician)	5a	Dissemination materials	10 man/day
Project Manager Applicant	5b	Trade seminar - Laos	5 man/day
CIRAD Senior Expert	5b	Trade seminar - Laos	5 man/day
WU Senior Expert	5b	Trade seminar - Laos	5 man/day
NAFRI (Trainer)	5b	Trade seminar - Laos	5 man/day
NAFRI (Agronomist)	5b	Trade seminar - Laos	5 man/day
NAFRI (Software Developer)	5b	Trade seminar - Laos	5 man/day
NAFRI (Technician)	5b	Trade seminar - Laos	5 man/day
NAFRI (Technician)	5b	Trade seminar - Laos	5 man/day
Project Manager Applicant	5c	Trade seminar - France	5 man/day
CIRAD Senior Expert	5c	Trade seminar - France	5 man/day

WU Senior Expert	5c	Trade seminar - France	5 man/day
NAFRI (Software Developer)	5c	Trade seminar - France	5 man/day
Project Manager Applicant	5d	Final Workshop - Laos	5 man/day
CIRAD Senior Expert	5d	Final Workshop - Laos	10 man/day
WU Senior Expert	5d	Final Workshop - Laos	5 man/day
NAFRI (Trainer)	5d	Final Workshop - Laos	5 man/day
NAFRI (Agronomist)	5d	Final Workshop - Laos	5 man/day
NAFRI (Software Developer)	5d	Final Workshop - Laos	10 man/day
NAFRI (Technician)	5d	Final Workshop - Laos	5 man/day
NAFRI (Technician)	5d	Final Workshop - Laos	5 man/day

Total : 155 man/day

B. Equipment and running costs

Travel Flights:

1 Europe / Asia at 1,200 €	€	1,200
3 Asie / Europe at 1,200 €	€	3,600
2 Asia / Asia at 250 €	€	500

Running Costs:

Car Rental 15 days at 60 €	€	900
3 Translations at 1000 €	€	3,000
3 Costs of conferences/seminars at 2,000 €	€	6,000
Photo exhibition, Posters, Brochures, Videos	€	2,000
1 Publication at 1,500 €	€	1,500

Budget justification

Equipment

The equipment consists of computers, video projectors, laptops, video and photographic equipment. The computers will be necessary for data processing, software development and training. Laptops and video projectors will be used for field trips, for the storage and the processing of the images and also for field training sessions. Video (only one kit) and photographic (2 kits, 1 per province) equipment will be used to create multimedia documents useful for training and dissemination. Except a laptop (WU), the equipment is intended to teams CIRAD and NAFRI based in Laos. No vehicles are budgeted for accessing the different places in the country for the field trips. For cost-effectiveness existing vehicle will be used. Just vehicle costs and local transportation are taken into account.

Workshops

The costs relative to the organization of the workshops in the different countries will be borne by the respective partners themselves. All the workshops will be attended by the research partners. For each workshop and seminar, a provision of 2,000 Euros is budgeted for logistical purposes.

Translation

It is necessary that all the softwares and multimedia documents will be translated into 3 languages (Lao, English and French) for a regional (South East Asia), European and world wide dissemination.

Web hosting

No specific cost will be borne by the project since the web-hosting will be carried out and maintained by the Project Applicant.

Demonstration plots

Demonstration plots maintenance, space and running costs will be the contribution of NAFRI towards the implementation of action.

Publications:

The final publication of CD-ROMs and the printing of brochures, posters and banners are accounted for larger dissemination. After the action ends, the cd-rom images will be provided on the website for downloads.

Research Costs:

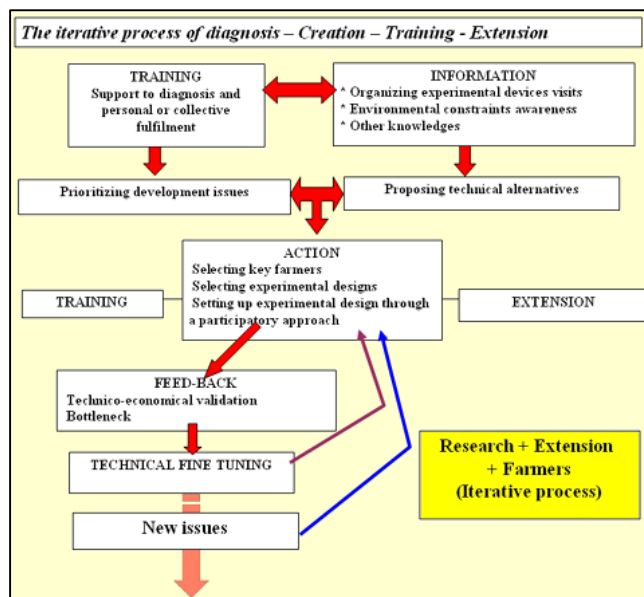
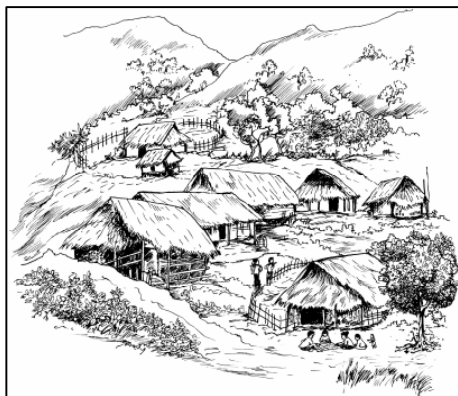
A research cost has been included to provide backend support for the research activities foreseen to evolve best practices on conservation agriculture (see activity 2: soil sampling and analyzes) and to cover the research costs of the CIS-WU communications expert.

a) methods of implementation

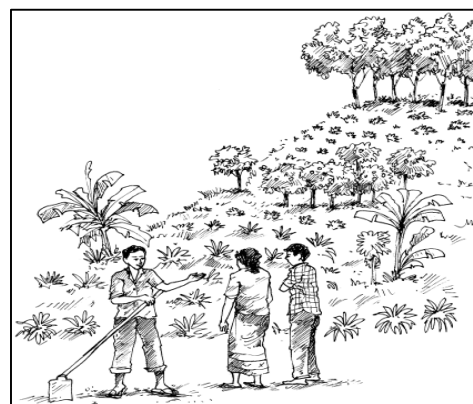
Modern information and communication technologies offer the promise of transforming the way trade related services are offered and how these customised applications impact the quality of services and create new opportunities for commerce. In the area of conservation agriculture, a lot depends on the way these techniques are adopted, long term sustainability and market linkages. To make this kind of tool available at the institutional level for a country like Lao PDR, we should not depend of high-technology products, but rather on robust, user-friendly, low or nil-cost information technologies.

Agronomy and Conservation Agriculture:

Conservation Agriculture techniques form the base platform for the action. In this area it is necessary to select a number of field areas, which selectively represents the diverse conditions of Lao PDR. This process of adopting and implementing conservation agriculture techniques involves gaining knowledge about environment and current practices, prioritizing development issues, proposing technical alternatives, selection of demonstration plots, setting up experimental design through participatory approach, obtaining feedback on techno-social and economic validation of the designs. This method of implementing new and alternative conservation techniques evolve over the period of the action and will be the core of the knowledge base.



Extensive field trips will be organised to coordinate with the farmer groups and to implement various techniques such as the DMC (Direct Seeding – Mulch based Cropping systems). The viability and the success rate of the adaptation of these techniques will carefully be analysed in comparison to other cropping systems. The results of the design will be fed to the extension services via the training programs. Recommendations resulting out of the implementations will be incorporated in to the knowledge base.



Capacity Building Activities - Training and Feedback:

Cropping systems can be regularly improved via "innovation-extension" approach, while meeting the requirements of farmers on one hand and the market demands on the other. Regular training sessions for the farmers and the extension workers will be held. Feedback from these audiences will help improve the contents and the nature of organisation of the knowledge base.

Final Products:

The final products, the knowledge base on the conservation agricultural practices for Laos, will be built for the open source platform. The web server hosting the knowledge base will run off Linux as operating system, Apache as web server, Mysql / Postgresql as database server, PHP as the server-

side scripting language and SVG (Scalable Vector Graphics) for image-serving. The CD-ROM will use browsers as front-end with XML to serve data so as to remain platform-independent.

Dissemination Seminars:

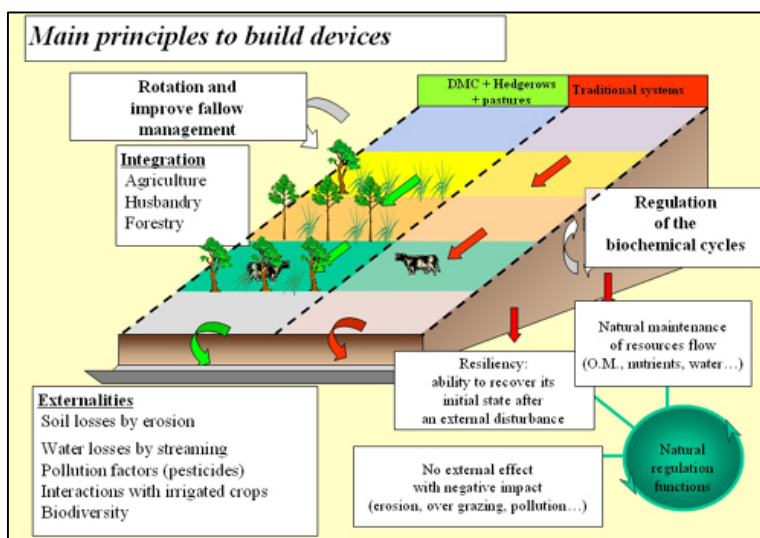
Dissemination seminars will be conducted in Europe and Asia to make the business communities of the respective regions to make them better aware of the investment opportunities in eco-friendly agricultural trade. Results of action such as CD-Roms, online knowledge base, brochures will be publicised and demonstrated.

b) reasons for the proposed methodology

Conservation Agricultural Practices:

Lao Traditional farming systems are changing with considerable agricultural development based on the production of cash crops such as maize, rice-bean (*Vigna umbellata*), peanuts, Job's tears (*Coix lacryma*), black cowpeas (*Vigna unguiculata*) and sesame. This development, by way of intensification, depends mainly on local market accessibility, transfer of technologies from Thailand and the financial capacities of local enterprises (to fund inputs, heavy mechanisation and technical skills from Thailand). Due to its low labour requirements and high productivity, maize is widely sown and spreads to new areas every year. Land preparation based on burning residues and ploughing on steep slopes has allowed for cultivation of large upland areas. As a result of this development, associated with land allocation and increasing population density, fallow periods are disappearing and agricultural systems are not conserving soils and nutrients. On the other hand the mountainous regions or the Lao uplands represent an area of key development interest. Marginalised by remoteness upland farmers have the highest poverty and lowest quality of life indicators in Lao PDR. The stabilisation of shifting cultivation in these upland areas is a key program of Lao PDR. Although shifting cultivation was sustainable in the past, it is generally recognised in many places, it can no longer be practised in a sustainable fashion without some appropriate modifications towards stabilisation.

Even arable land with very good soils and high potential for agricultural development can be rapidly degraded, in which case negative social and economic impacts follow. Initial assessment of this 'resource-mining' agricultural development shows dramatic land erosion, and destruction of roads and paddy fields. In order to prevent further deterioration to the crop ecological system one needs to envisage alternative cropping and farming systems stabilising plant-soil system which will also be viable in terms of techniques and socio-economic aspects. As a piloting perspective, a Direct Seeding Mulch based Cropping System (DMC) can be a viable alternative. This DMC system involves:



- Initial assessment: agro-economic and social diagnosis of farming systems, human and physical environments provides a basis for generating technologies adapted to smallholders' strategies and environmental conditions
- Setting up medium-term demonstration plot units where conventional systems are continuously compared with DMC systems based on available technologies, and innovative DMC systems based on new technologies and inputs
- Adaptation and validation by smallholders of DMC systems and simple technologies
- On-farm implementation with farmer groups: agro-economic evaluation for labour requirement, production costs, yields, net income and labour productivity

- Community-based approach which focuses on the adoption of technologies at village level, taking into account collective land management
- Permanent training for smallholders, extension agents and information provision to policy makers
- Follow-up and analysis of the conditions of extension and adoption by farmers

As this process demonstrates, the knowledge base will systematically integrate the processes that are involved in implementing alternative conservation agricultural practices, the experiences and the know-how at the core. The knowledge base would be addressed towards the farmers, extension services and the trade facilitation agencies.

Low Cost - Open IT&C Solutions:

The choice of an Open Source Software is very important since it would help reduce the cost of ownership and also the applications running on it. There are wide ranges of applications that are readily available, which are again free and can be customized to suit requirements, whereas proprietary software is expensive and does not offer the flexibility of customization according to the local requirements.

Training and Feedback:

The training sessions for the farmers and extension workers are essential to promote the application of conservation techniques in the agricultural reflecting on the trade and development sector and in implementation activities of the government bodies. This will also help generate valuable feedback on

- the comfort of the end-user with the design and presentation of the knowledge base
- the quality and the comprehensive nature of the scientific data provided
- the relevance of the provided information to the requirements



Feedback generated at the end of training sessions will allow for the constant improvement of both the presentation and the scientific content of the knowledge base. This will ensure that the information flow is streamlined and would benefit the needs of the defined target groups in all respects.

c) how the action is intended to build on a previous action (where applicable)

1) PRONAE - National Program on Agro- Ecology - CIRAD (2001 – 2005), Lao PDR:

CIRAD – Annual Crops Department has been involved in devising appropriate alternative cropping and farming systems in the face of changing climatic, economic and social scenarios with a thrust on eco-system oriented approach. In essence, crop plant biodiversity, soil biology, erosion, and water flows are taken into account, along with the effects of crop sequences and improved varieties on pests and diseases and on the environment, as well as the response of cropping environments to recycled waste inputs. The aspect on ecological conservation needs also an integrated approach towards the populations' livelihoods which are dependant on the eco-system. Given this background, CIRAD has been mandated by French Ministry of foreign affairs (MAE), French Agency for Development (AFD)⁶ and the French Global Environment Facility (FFEM)⁷, to develop a local-global Action Plan on Agro-ecology (2000-2004) aiming at facilitating the development and diffusion of these alternative technologies in 5 key ecosystems throughout the tropical and Mediterranean world. The CIRAD team in Laos already is striving to make Laos as an exemplary model for sustainable agriculture and

⁶ See <http://www.afd.fr> for more details on Agence Française de Développement

⁷ See <http://www.ffem.net> for more details on FFEM

environment planning to the benefit of South East Asia⁸. The experiences from PRONAE which was implemented in Sayaboury and Xien Khouang provinces of Lao PDR in coordination with NAFRI will help the CIRAD team in the implementation of ORCATAD and also would take this work further on to a national scale. The current action would directly address the questions of rural poverty and livelihood issues by aiming to increase production linked to trade and development.

2) Macrofauna (1999-1996)

European project, No ERBTSS3 entitled "Conservation of soil fertility in low input agricultural systems of the humid tropics". This project was based on earthworm impact on soil processes in mainly natural ecosystems and traditional agricultural system.

3) International Book

Titled "Earthworm Management in Tropical Agroecosystems" P. Lavelle, L. Brussaard and P. Hendrix CAB – International (1999). A part of this book (chapter) treated of the impact of earthworm on plant parasitic nematodes in agriculture.

4) Iboy/Diversitas Project

International Biodiversity Year Observation (2001). Macrofauna : an endangered resource in a changing world.

5) PNETOX 1(2000-2002)

French National project (Ministry of Ecology and Development) titled "Adaptation, calibration and validation of synthetic bioindicators of the impact of pesticide products on crops soil and wine-producing soil" (2000-2002). This project studied the impact of same chemicals pesticides and herbicides used in agriculture on soil fauna and soil microbiology activities

6) AdvenTrop – Doc

Adventrop – Doc V 1.1 is a species identification application based on the tested first version of IDAO for the weed species of West Africa. It was developed specifically to address the needs of extension workers of the region. Since it was based on a multimedia approach, the product served as a useful tool in the appropriate format for the extension workers. It was improved more with the feedback generated by these extension workers and was published as a final product with the version 1.1.

7) AdvenRun

AdvenRun V 1.0 is a multimedia based application which helps identify weeds of crops of Reunion-Island. The application CD-ROM uses the IDAO technology as the backbone and helps the extension workers in the region to better identify and control the limiting factors of the gross yield. The application design and architecture of the software from the product will be of great help in designing the ORCATAD knowledge base. An extensive relevant experience has been garnered with this project since Reunion Island is in the tropics and will serve as a credible launching platform for ORCATAD.

d) procedures for internal evaluation

The project will be supervised essentially by the project manager who will coordinate the activities of the partners. A coordination and management mechanism will be agreed upon in the first workshop of the project. A review and further planning of the work will be done at the end of each field trip.

Also, assessment of activities and the targets achieved will be regularly reviewed by all the participants of the project in each workshop and corrective measures, if needed, will be recommended. At the end of each workshop, reports will be generated by each partner and sent to the project manager of the applicant, who will review and compile the reports. Benchmarks for achievement of the development schedule of the application will be set in each workshop and will be closely followed by the project manager. Since this development process is dependent on the activities of all the partners, this could serve as an effective indicator of the progress

e) level of involvement and activity of other organisations (partners or others) in the action

⁸ See <http://agroecologie.cirad.fr> for more details on the CIRAD's agro-ecology program and the regional network.

CIRAD, France (Applicant):

The CIRAD, the Centre de Coopération Internationale en Recherche Agronomique pour le Développement, is the French specialist in development-oriented agricultural research for hot regions. The CIRAD agro-ecology team will be responsible for coordinating the whole action in terms of bringing the various aspects like designing of conservation techniques, implementation on field, harmonize the progress on field with training and development of knowledge base. CIRAD with its extensive expertise in conservation agriculture supported by its long experience in the South East Asian region will prove to be a valuable leader for the action. CIRAD will primarily take the primary responsibility of implementation of the action, from coordinating with partners, local agencies, organising field trips, capacity building activities, building the knowledge base and finalising the end products.

National Agriculture and Forestry Research Institute, Lao PDR (Partner):

The NAFRI, Lao PDR has been in the forefront of research in production and propagation of cereal crops, collection evaluation and conservation of indigenous genetic resources, research in cultivation techniques for crops, cropping patterns and agricultural production systems. The partner will be responsible for the activities related to collection of data, compilation and contribute to the constitution of the knowledge base of the project. The partner will also be responsible for organising the training of trainers with the Ministry of Agriculture and Forestry and the National Agriculture and Forestry Extension Service. The training sessions will result in the generation of feedback, which will enrich the quality of the knowledge base. It is significant to note that NAFRI acts as an “in-service training and continuing education” agency.

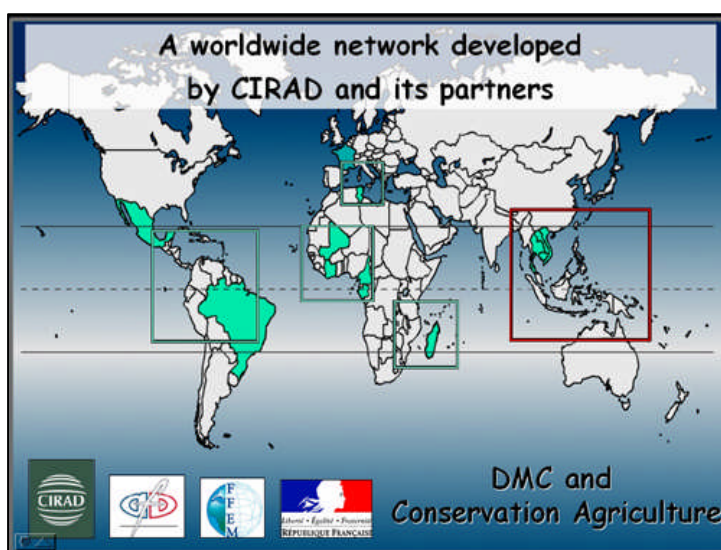
Sub-department Communication Science (CIS) – University of Wageningen (Partner):

The Research Group of Communication and Innovation Studies (CIS) comes in as a valuable partner in reflecting, guiding and advising on the training modules for the farmers and extension services of Lao PDR. The expert from CIS will be responsible for academic learning on communication strategies for capacity building activities. Furthermore, CIS will handle the management of mechanisms for generating feedback from the training sessions. CIS' involvement is motivated by learning about how technical agricultural knowledge bases (with conservation agriculture in Laos as a case), through the use of ICTs, could be used in (in)formal (extension and other agricultural) education. In coordination with NAFRI and CIRAD, CIS will contribute to the organisation of the training sessions for farmers and extension service and will play a major role in enriching and finalising the training modules in the most appropriate forms.

f) reasons for the role of each partner

CIRAD, France (Applicant):

CIRAD for more than 20 years has been developing alternatives to conventional cropping systems in southern countries. Agriculture based on soil tillage is now being questioned as it seems unable to face the main challenges of soil and water conservation, environmental protection, food safety and cost reduction. Attractive, economically profitable, environmentally friendly and sustainable cropping systems have been developed and extended on a large scale, based on direct seeding on permanent plant cover without soil tillage. These techniques are widely developed by CIRAD for various countries including Cambodia, Lao PDR, Vietnam, Cameroon, Madagascar, Mali, Tunisia, Brazil and are in the process of initiating activities in Zimbabwe, Algeria and China. CIRAD additionally manages a regional network on agro-ecology in Southeast Asia (See annexes).



National Agriculture and Forestry Research Institute – Lao PDR (Partner):

National Agriculture and Forestry Research Institute, formed in 1999 by combining agriculture, forestry and fisheries research centres. NAFRI is the main research organisation of the country under the direct supervision of Ministry of Agriculture and Forestry. It undertakes integrated agriculture, forestry and fisheries adaptive research in order to provide technical norms and results for agriculture development strategy formulation in accordance with the government policy. It serves as a central institution of research with 8 research centres, consisting of projects, research stations and pilot sites located across the country. It has the scope of influencing the policy formulations of the government implying a wider impact based on the outcomes of the activities of the institution. NAFRI has also done some pioneering work on the improving livelihoods in the upland of Lao PDR⁹ (see annexes).

Sub-department Communication Science (CIS) – University of Wageningen (Partner):

The CIS looks at the way communication can be strategically brought in to reinforce development, pro-social behaviour, organizational efficiency, and collective decision-making. Its field covers the broad and interconnected areas of agriculture, food and health, environment and nature, in western as well as in non-western countries. Attention is paid to communication as an instrument for implementing plans and - progressively - to communication as a mean to arrive at better plans by involving people and special (stakeholder) groups in and outside organizations.

g) team proposed for implementation of the action:

Long-term experts
CIRAD – Project Manager (Applicant) – Soil Biologist
CIRAD – Senior Expert (Applicant) –Agronomist, DMC Specialist
Wageningen University – Senior Expert (Partner) – Communication Expert
NAFRI – Senior Expert A (Partner) - Trainer
NAFRI – Senior Expert B (Partner) – Software Developer
NAFRI – Senior Expert C (Partner) - Agronomist
NAFRI – 2 Technicians (Partner)
Short-term missions & consultancy
Field Staff and representatives of District and Village level

⁹ <http://www.nafri.org.la/Informations/sourcebook/sourcebook.htm>. NAFRI, NAFES, NUoL, 2005. Improving livelihoods in the uplands of the Lao PDR, Volume 1: Initiatives and approaches, Volume 2: Options and opportunities. National Agriculture and Forestry Research Institute, Vientiane, Lao PDR.

1.9 Duration and action plan

The duration of the action will be 30 months.

Year 1 Activity	Semester 1						Semester 2						Implementing body
	1	2	3	4	5	6	7	8	9	10	11	12	
1a -Open the project website:													NAFRI
1b - Open the project e-forum:													NAFRI
1c – Bibliography:													CIRAD + NAFRI + WU
1d - Prepare and organize an initial workshop in Lao PDR:													CIRAD + NAFRI + WU
2a - Bibliography:													CIRAD + NAFRI
2b - Establishing demonstration plots:													CIRAD + NAFRI
2c - Verifying eco-friendly products (soil quality):													CIRAD + NAFRI
2d - Finalise recommendations for the knowledge base:													CIRAD + NAFRI + WU
3a - Prepare multimedia documents:													CIRAD + NAFRI
3d - Fields visits:													CIRAD + NAFRI
4a - Initial knowledge base on various concepts and practices:													NAFRI + CIRAD
4b - Building of the core of the knowledge base:													NAFRI + CIRAD
4c - Enriching the knowledge base:													NAFRI + CIRAD + WU
5a - Preparation of dissemination materials:													NAFRI
5b - Organisation of Trade Potential Seminar in Lao PDR:													NAFRI + CIRAD + WU

Activity	Quarter 5	Quarter 6	Quarter 7	Quarter 8	Quarter 9	Quarter 10	Implementing body
2b - Establishing demonstration plots:							NAFRI + CIRAD
2c - Verifying eco-friendly products (soil quality):							NAFRI + CIRAD
2d - Finalise recommendations for the knowledge base:							NAFRI + CIRAD + WU
3a - Prepare multimedia documents:							NAFRI + CIRAD
3b - Training of trainers:							NAFRI + CIRAD + WU
3c - Farmers and extension workers Fields Schools:							NAFRI + CIRAD + WU
3d - Fields visits:							NAFRI + CIRAD
4c - Enriching the knowledge base:							NAFRI + WU
4d - Final Release:							NAFRI + WU
5a - Preparation of dissemination materials:							NAFRI
5c - Organisation of Trade Potential Seminar in Europe:							NAFRI + CIRAD + WU
5d - Organisation of Final workshop, Lao PDR:							NAFRI + CIRAD + WU

1.10. Logical framework

	Intervention logic	Objectively verifiable indicators of achievement	Sources and means of verification	Assumptions
Overall objectives	<i>* To facilitate the integration of Lao PDR into the fast pacing global information society using ICT tools for promotion of conservation agricultural techniques in turn promoting trade in eco-friendly agro products</i>	<i>Increased adoption of conservation agriculture techniques in the target provinces resulting in enhanced production of eco-friendly products available of export market</i>	<i>Availability of the open-source based knowledge base on conservation agriculture online</i> <u>Agricultural statistics from:</u> * Ministry of agriculture et forestry * Provincial and district extension services * Surveys	
Project purpose	<i>* To increase the practice of conservation agricultural techniques and production of eco-friendly agro-based goodsby using IT&C solutions</i> <i>* To reinforce the institutional capabilities of intermediary business organisations and SMEs of LaoPDR in respect to niche market and new business opportunities in the international market for eco-friendly products</i>	<i>10 cropping systems/Province with conservation agriculture techniques well described according to the socio-economic and biophysic context and their conditions of adoption</i> <i>One project website linked to database of conservation agricultural techniques and production</i> <i>extension of conservation agriculture techniques in 2 Provinces 3 districts in each province = 6 districts each year</i> <i>Requests of others provinces</i>	<i>Field Reports and quarterly updates of the project prepared by the project team</i> <u>Agricultural statistics from:</u> * Ministry of agriculture et forestry * Provincial and district extension services * Surveys	<i>The Government of the Lao PDR has already decided to promote conservation agricultural practices in the country. It has issued an official decree signed by the Council of Ministers to all the provincial administrations to promote these alternative practices.</i> <i>NAFRI and NAFES are fully concerned by the decree of the council of Ministers and has to contribute to the five years plans of the MAF to extend Conservation agriculture techniques to all the RDP Lao.</i> <i>Spirited cooperation of the local SMEs and business organisations</i>
Expected results	Concrete Outputs: <i>* Sources of knowledge base on conservation agricultural techniques for certain cash crops on the internet and other media built</i> <i>* Best practices in conservation agriculture adaptedby farmers in the targeted areas</i> <i>* knowledge of the business organisations and SMEs about the potential for international trade (production and marketing mechanisms) in eco-friendly products enhanced</i>	<i>Operational website</i> <i>Synthesis from 300 soils analyses 500 copies of all modules products distributed 1000 copies of cd-rom distributed</i> <i>30 farmers/district = 180 farmers each year * 6 demonstration plots</i> <i>* 5 interventions in the media (TV, Radio, newspapers...) each year</i> <i>* 2 trade seminars (1in RDP Lao, 1 in France) * 2 communication seminars/year * 1 launch and 1 final worshop</i> <i>* 1 long terme (6 months) practical training session in each province each year * 3 short term (1 week to 10 days) training sessions in each province each year</i> <i>* 5 NAFRI Staff trained during the project * 2 NAFRI staff (ToT)/district = 6 NAFRI staff each year (ToT) * 10 Extension workers/district = 60 extension workers each year</i> <i>* 200 fields visits each year by farmers, extensionists, policy makers, media, Rural Development Project managers...</i>	<i><u>A project website linked to knowledge base on-line</u> * fréquent visits/hits of the project website</i> <i>Availability and diversity of the materials on both soft and hard formats</i> <i><u>Regular reports and seminars of the project</u>, associated projects and NAFRI</i> <i><u>Reports from:</u> * Ministry of Agriculture and Forestry * Ministry of agriculture et forestry * Provincial and district extension services</i> <i>* Rural Developement Projects (PRONAE...)</i> <i><u>Dissemination seminars and materials</u> in form of brochures and exhibits Two trade potential dissemination seminars organised one in Asia, one in France, to dessiminate the products adressng the business communities an intermediary business organisations</i>	<i>The NAFRI and Extension Services' (NAFES) capacity to absorb and continue using what they got from the project</i> <i>is confirmed by the already existing dynamics in the extension of the conservation agriculture in the districts where they work together</i> <i>The conditions of adoption of these techniques for the farmers should be studied, but according to the large diversity of cropping systems (even for the poor) proposed and to their positive impact to the socio-economic results, the extension of DMC systems will progres in tandem with communication and training.</i> <i>Appropriate minimal social conditions in the remote areas of Lao PDR</i> <i>Timely support from business organisations</i>
Activities	Activities: <i>a) project launch, preparation of website, selection of field areas b) Implementation of conservation techniques c) Training of farmers and extension services d) Building up knowledge base on conservation agricultural best practices for eco-friendly cash crops, which will beavailable online, cdroms and books e) Communication & Dissemination activities about the scope for international trade in eco-friendly agro products</i>	Means: <i>Provision of web-server, IT equipment, mobilisation of agronomists, field staff, vehicles Bibliography, Demonstration Plots, Agronomists, Field trips Communication expert, Training modules IT staff with equipment Training Sessions for target groups, Seminars, production of dissemination material, intermediary business organisations and SMEs</i>		<i>Spirited cooperation of the local agencies both from State like extension and business organisations and SMEs</i>

2. Expected results

2.1 Expected impact on target groups

(a) the situation of target groups

By the envisaged capacity building activities such as training sessions for the farmers and extension services, the institutional capabilities will be reinforced. The deployment of the IT&C based solutions for agriculture will greatly facilitate interventions for alternative conservation practices beneficial to the community. The conventional flow of information and training can be challenged by such a knowledge base, which will maintain current information up to date. Also by providing training in the latest information technology tools, the target groups will be exposed to better equipped facilities, thus improving the efficiency of functioning and in general improvement in the quality of services.

The project providing a knowledge base customised for Lao PDR would enable the wider business community to identify potential for trade in eco-friendly agricultural products. Facilitating agencies will be able to make use of the resources which will be available openly in the website to promote and enhance new business opportunities in agro-trade. The demonstration plots will also serve as a point of source for new business initiatives, which will be within reach of the population.

(b) the technical and management capacities of target groups or partners (where applicable)

The staff of the extension services will be able to bring in more efficiency to their activities by establishing a system of information resource, which will remain up to date. The extension department's services will enormously improve on the quality of delivery of services and will be more effective. In an overall sense, it brings in a systematic streamlining to the functioning and the improved management capabilities of the extension department in Lao PDR.

The shortage of expertise in developing Information Technology based solutions for agriculture to be adopted for improving services is a felt need in the target country. By establishing a knowledge base designed in Open Source software, administration of various concerned departments can make use of such a tool to enhance their own capabilities based on this model. Eventually this will result in the overall improvement of technical capabilities of the concerned target groups, since the project website will also contain structured information on how to build such an open source based solution. The management abilities of the target groups will be greatly enhanced with the practical deployment and testing of the knowledge base in their own environment. Apart from the national level agencies such as LNCCI and Ministry of Commerce, this would also enable the micro-organizations to manage their resources at village level with the synergic knowledge and technical capacities at the local and institutional levels.

As for the different partners viz. CIRAD France, Wageningen University, The Netherlands and NAFRI, Lao PDR, the action will help to assimilate expertise such as:

- a) designing and implementing applications based on Open Source in the areas of conservation agricultural practices (CIRAD, NAFRI)
- b) improved abilities in developing and customizing IT & C applications for specific target audiences (CIRAD, NAFRI)
- c) Improved understanding of capacity building initiatives at the local level targeted at the intermediary business organisations and administration of various concerned departments such as the extension services and Ministry of Commerce (NAFRI, Wageningen)
- e) enhancing the capabilities of the partners in terms of assisting in institutional reinforcement activities, formulation of policies to facilitate international trade and development particularly in southern countries (CIRAD, Wageningen)
- f) assimilate experience on developing demonstrative models addressing the local needs pertaining to creation of niche opportunities in agro-trade (CIRAD, NAFRI, Wageningen)

2.2 Publications and other outputs

The major outputs of the project would be:

- a) a fully functional website hosting the knowledge base, and a CD-Rom version containing the knowledge base on Conservation Agriculture Practices for Lao PDR
- b) a discussion forum on the website of the project, serving as a platform for exchange on conservation agriculture techniques for the region
- c) demonstration plots substantiating the significance of agricultural conservation practices to serve those interested agencies
- d) a model brochure and booklet on paper, containing concise information on the eco-friendly agro products of Lao PDR, particularly focussing on those which have high market value which can be reproduced and disseminated by trade facilitation agencies such as LNCCI, Ministry of Commerce and Foreign Trade Department
- e) This website would also contribute to the development of Open Source based applications addressing specific target audiences like the local and international business community and also provide updates for the applications that are already made available to the public
- f) Two trade potential disseminations seminar, one in Europe (France) and one in Asia (Lao PDR) to disseminate the products of the action specifically addressing the business communities and intermediary business organisations

A final report of the project will be published along with periodical reports covering various aspects of project implementation, including the technical, agronomic, communication and dissemination aspects. The observations made during the course of the project on issues like collection of data, formatting, digitization, interaction with the farmers and extension services on one hand and with business organisation on the other would be carefully considered. This will be in conformance with the EC's requirement in terms of periodic reporting.

Monitoring and Evaluation:

The monitoring and evaluation of the progress of the project will be done along with the workshops that are to be held regularly. All the key staff of the project will participate in the meetings and fix targets for the forthcoming period and evaluate the work done in the previous period.

The targets are to be set in every workshop and the achieved results will be compared with the set targets in these workshops.

The key experts of each partner are to communicate regularly to coordinate activities and will generate reports about the progress, quality and the quantity of the achievements made during each period.

Indicators of progress are the steps achieved in software development, which could be measured by releases in accordance with the respective periods mentioned in the plan. Since the preparation of periodic releases is heavily dependent on the data collection exercises and the assimilation of the knowledge base, the software releases would be a very reliable indicator.

The assessment of appropriateness of the tool by the farmers and extension staff will go hand in hand with the formulation of the software application. The reviews and feedback generated at the end of training sessions will not only make it possible to enrich the quality of the content and the software design, but will also indicate the consistency of the progress of the overall project.

Periodic quarterly reports generated by key experts of each partner will be compiled and reviewed by the project manager of the applicant and submitted to EC.

The data made available on the website and discussion in the e-forum will also serve as an indicator to reflect the project's dynamism.

2.3 Multiplier effects

The effects of the action can be foreseen at various levels with respect to various aspects viz. capacity building of staff of various administrations, improvement of quality of services offered by trade facilitation agencies in the region and enhancing the potential of new international business opportunities in trade and agricultural development.

The proposed action is conceived with the enormous possibilities of how IT&C applications, if properly designed and applied to sectors like trade and commerce can improve the quality of intermediary business organisations and enhance the capabilities of extension services and business organisations in the target country.

Trade facilitation agencies are the ones which will greatly benefit from the results of the proposed action. They will not only benefit directly from the action, but will also be able to implement similar initiatives to promote trade in niche business areas. By creating a knowledge base of just one sector of production among a whole range in the country, the action will demonstrate the possibilities of creating similar knowledge bases in other resources that might have considerable commercial value in the international market. These can range from non-timber forest products to fisheries. Given the situation that Lao PDR is endowed with rich natural resources and limited industrial resources, the proposition of contribution to nation's economy will have to depend upon these primary sectors of production. In consideration of this fact, the agencies concerned with promoting trade and international commerce, can make use of this demonstrated model to adapt to its needs to address other potential areas in agro-trade.

The action also enunciates a huge opportunity for the micro organisations at the village level to participate in trade of agriculture related products. By providing a knowledge base in customised for Lao PDR and facilitating presence at the international level, rural communities can engage in propagation of small and micro enterprises for products which have significant market in the international areas. This will not only address the question of developing new business opportunities for rural communities in Lao PDR but also to larger extent, alleviation of rural poverty.

At the regional level, which is renowned for its strong internal trading, the action will strongly influence the way extension and facilitation agencies function. All the neighbouring countries will stand to benefit from the fact that the application is designed on open source and it will depend only upon their political will to deploy similar application in an appropriate manner. The other countries in the region, like Thailand, Cambodia and Vietnam, who trade intensively with Lao PDR can also design such applications for their native population and deploy them. Needless to say, this will contribute to the conservation of eco systems in these countries which are of global concern today. Also by making the knowledge base and the tools to create one available online open to all, the action envisages development of similar applications applied to other areas of primary production.

At the international level, such an action demonstrating the rich natural resources of a least developed country and the potential for new business opportunities can spur interests in foreign investments in the region, particularly in agro based trade. As of today the western world remains one of the destination markets for many of the agro based products and the show-casing effort complete with labelling processes as eco-friendly would only help the international audience to gain a thorough knowledge about the resources, which will enhance the possibilities of growth in international agro-trade with the region.

2.4 Short- and long-term impact

a) The financial aspect (how will activities be financed when the grant ends?)

At the post-project period, the main thrust will be to maintain the website which will contain the knowledge base on the Conservation Agriculture Practices for PDR. The website will be hosted by CIRAD on their web server to promote dissemination of the system. On the longer run, the e-forum and the website should evolve as a platform for discussion on issues related to the conservation techniques and development of business opportunities in agro-trade. The CIRAD will also provide human and technical resources to allow the content of the website to remain up-to-date.

At its conclusions the project, will publish a certain number of CD-ROMs which will be distributed to the different interest groups. This activity will be sustained by providing the CD-ROM image for downloading on the website. Those who are interested will be encouraged to download this CD-ROM image and make their own CD-ROM. This will also retain the flexibility of updating the contents of the CD-ROM whenever changes are needed.

b) Institutional level (Will structures allowing the activities to continue be in place at the end of the action? Will there be local "ownership" of action outcomes?)

As one of the outcomes of the project, a network of partners is envisaged as this would continuously contribute towards the enrichment of the knowledge base. As a follow-up action, particularly the partners from Lao PDR (NAFRI) and France (CIRAD) will work closely to collaborate in various initiatives concerning conservation agriculture. Since the information on the website needs to be kept up-to-date with the field investigations, partners will need to work in coordination with each other. The NAFRI of Lao PDR and CIRAD will share and update the information which might result of their own independent activities in these areas. Particularly, the partner from Lao PDR, the NAFRI will retain and maintain the demonstration plots and will continue to expand its operations. This will help to serve the interested audience at the local level in Lao PDR, like the local business community. The NAFRI will also have accrued expertise in building similar applications for their country's own needs. The extension services will be able to use the main output of the action, since the Open source versions of the knowledge base will be covered by GNU Public License (GPL) or any other suitable open license format. It is worth noting that the CIRAD team and NAFRI have existing strong working relationships and CIRAD leads a regional network on agro-ecology for South East Asia in which NAFRI is an active member.

c) Policy level (What structural impacts will the action have - e.g. will it lead to improved legislation, codes of conduct, methods, etc?)

Best practices: The knowledge base will also greatly assist in evolving management practices aided with IT&C applications in the target country helping to identify priority areas in primary production sector. Conservation techniques in agriculture will need to be necessarily implemented for Lao PDR to become a country with food security and sustainable future. As this knowledge base will demonstrate both at communication level (thru ICT application – knowledge base) and on field areas by proven methods (with demonstration plots) it will only be a question of time that the best practices learnt from the project will be adopted and replicated nationwide. This is also because one of the partners NAFRI is a state organisation and is the primary research organisation for agriculture in Lao PDR. With the action's strong linkages with the policy-makers one can envisage a positive impact on legislations regarding agriculture in near future.

The scope of the project in addressing issues related to development with the aid of IT&C by itself is bound to create an atmosphere where institutions already working in the area, and also those who initiate new activities, can learn from the project experience. The website and the discussion forum should provide the right ambience as well as an umbrella for organizations who would want to contribute to the development of Open Source based applications for trade and development. The standards and protocols that would evolve at the end of the project for developing similar low/nil-cost applications targeted at trade and development would invite a whole spectrum of institutions ranging from scientific research institutions to implementing agencies, like government (agriculture dept.) and non-government agencies working at the grass-roots level, to look for such alternatives based on Open Source. As this is low-cost, customizable to local needs, adaptable to specific applications required at any scale (from weather forecasts to market fluctuations), it promises to have a wide impact on policy makers, from the national level to organizations working at local level.

3. Budget for the action

Budget for Project	All Years				Year 1			
	Unit	# of units	Unit rate (in EUR)	Costs (in EUR) ³	Unit	# of units	Unit rate (in EUR)	Costs (in EUR)
1. Human Resources								
1.1 Salaries (gross amounts, local)								
1.1.1 NAFRI Technician	Per day	525	20,00	10 500,00	Per day	210	20,00	4 200,00
1.1.2 NAFRI Technician	Per day	525	20,00	10 500,00	Per day	210	20,00	4 200,00
1.1.3 Administrative/ support Staff								
1.2 Salaries (gross amounts, expat/int. staff)								
1.2.1 NAFRI Senior Expert (Software Developer)	Per day	105	60,00	6 300,00	Per day	45	60,00	2 700,00
1.2.2 NAFRI Senior Expert (Trainer)	Per day	300	60,00	18 000,00	Per day	120	60,00	7 200,00
1.2.2 NAFRI Senior Expert (Agronomist)	Per day	300	60,00	18 000,00	Per day	120	60,00	7 200,00
1.2.4 Senior Cirad expert	Per day	65	476,00	30 940,00	Per day	25	476,00	11 900,00
1.2.5 Project Manager Applicant	Per day	91	405,00	36 855,00	Per day	40	405,00	16 200,00
1.2.6 Senior WU expert	Per Day	75	370,00	27 750,00	Per day	30	370,00	11 100,00
1.3 Per diems for missions/travel								
1.3.1 Abroad (project staff)								
1.3.1.1 France	Per diem	20	170,00	3 400,00	Per diem	0	170,00	0,00
1.3.1.2 RDP Lao	per diem	230	100,00	23 000,00	Per diem	91	100,00	9 100,00
1.3.2 Local (project staff)								
1.3.2.1. NAFRI Senior Expert (trainer) Lao PDR	Per diem	150	32,00	4 800,00	Per diem	50	40,00	2 000,00
1.3.2.2. NAFRI Senior Expert (Agronomist) Lao PDR	Per diem	150	32,00	4 800,00	Per diem	50	40,00	2 000,00
1.3.2.3 NAFRI Technician Lao PDR	Per diem	150	32,00	4 800,00	Per diem	50	32,00	1 600,00
1.3.3 Seminar/conference participants								
Subtotal Human Resources				199 645,00				79 400,00
2. Travel								
2.1. International travel								
2.1.1 Asia - Europe	Per flight	3	1 200,00	3 600,00	Per flight	0	1 200,00	0,00
2.1.2 Europe - Asia	Per flight	4	1 200,00	4 800,00	Per flight	2	1 200,00	2 400,00
2.1.3 Europe - Europe	Per flight	1	500,00	500,00	Per flight	0	500,00	0,00
2.1.4 Asia - Asia	Per flight	9	250,00	2 250,00	Per flight	3	250,00	750,00
2.2 Local transportation	Per month	2	400,00	800,00	Per month	1	400,00	400,00
Subtotal Travel				11 950,00				3 550,00
3. Equipment and supplies								
3.1 Purchase and rent of vehicles								
3.1.1 Purchase of vehicles	Per vehicle	0	0,00	0,00	Per vehicle	0	0,00	0,00
3.1.2 Rent of vehicles	Per day	45	60,00	2 700,00	Per day	15	60,00	900,00
3.2 Furniture, computer equipment								
3.2.1 Personal Computer, laptop and peripherics	11 Units	1	12 000,00	12 000,00	11 Units	1	12 000,00	12 000,00
3.2.2 Colour printer network laser	2 Units	1	3 000,00	3 000,00	2 Units	1	3 000,00	3 000,00
3.2.3 Video equipment (3CCD camera DV, Storage, Editor...)	1 Unit	1	3 000,00	3 000,00		1	3 000,00	3 000,00
3.2.4 Photographic equipment (1 SLR Camera, 2 lens, Bag, tripod, Digitizer, scanner...)	2 Units	1	6 000,00	6 000,00		1	6 000,00	6 000,00
3.2.5 Video projector	2 Units	1	3 000,00	3 000,00		1	3 000,00	3 000,00
3.3. Instruments for macrofauna identification		1	2 400,00	2 400,00		1	2 400,00	2 400,00
3.4 Spare parts/equipments for machines, tools			0,00	0,00			0,00	0,00
Subtotal Equipment and supplies				32 100,00				30 300,00
4. Local office/Action costs								
4.1 Vehicle costs	Per month	27	300,00	8 100,00	Per month	9	300,00	2 700,00
4.2 Office rent	Per month	0	0,00	0,00	Per month	0	0,00	0,00
4.3 Consumables - office supplies	Per month	0	0,00	0,00	Per month	0	0,00	0,00
4.4 Other services (tel/fax, electricity/heating, maintenance)	Per month	0	0,00	0,00	Per month	0	0,00	0,00
Subtotal Local office/Action costs				8 100,00				2 700,00
5. Other costs, services								
5.1 Publications		1	1500,00	1 500,00		0	1500,00	0,00
5.2 Studies, research		300	73,00	21 900,00		100	73,00	7 300,00
5.3 Auditing costs		0	0,00	0,00		0	0,00	0,00
5.4 Evaluation costs		0	0,00	0,00		0	0,00	0,00
5.5 Translation, interpreters		4	1000,00	4 000,00		1	1000,00	1 000,00
5.6 Financial services (bank guarantee costs etc.)		0	0,00	0,00		0	0,00	0,00
5.7 Costs of conferences/seminars		4	2000,00	8 000,00		1	2000,00	2 000,00
5.8 Bibliography		1	1 000,00	1 000,00		1	1 000,00	1 000,00
5.9 Photo exhibition, posters, videos		1	2 000,00	2 000,00				0,00
5.10 Publishing of training modules		1	4 000,00	4 000,00				0,00
5.11 CD-ROM publication		1	1 000,00	1 000,00				0,00
Subtotal Other costs, services				43 400,00				11 300,00
6. Other								0,00
		0	0,00	0,00		0	0,00	0,00
Subtotal Other				0,00				0,00
7. Subtotal direct costs of the Action (1-6)				295 195,00				127 250,00
8. Administrative costs (maximum 7% of 7, total direct eligible costs of the Action)			6,98%	20 605,00				8 715,00
9. Total eligible costs of the Action (7+ 8)				315 800,00				135 965,00

Budget for CIRAD		All Years			Year 1		Year 2 & 3
Expenses	Unit	# of units	Unit rate (in €)	Costs (in €)	Unit	# of units	Costs (in €)
1. Human Resources							
1.1 Salaries (gross amounts, local)							
1.1.1 Technician	Per day	0	0,00	0,00	Per day		0,00
1.1.2 Administrative/ support Staff	Per day	0	0,00	0,00	Per day		0,00
1.2 Salaries (gross amounts, expat/int. staff)							0,00
1.2.1 Senior expert	Per day	65	476,00	30 940,00	Per day	25	19 040,00
1.2.2 Project Manager Applicant	Per day	91	405,00	36 855,00	Per day	40	20 655,00
1.3 Per diems for missions/travel							
1.3.1 Abroad (project staff)							
1.3.1.1 Senior expert							
1.3.1.1.1 France	Per diem	5	170,00	850,00	Per diem	0	850,00
1.3.1.1.2 Lao PDR	Per diem	60	100,00	6 000,00	Per diem	20	4 000,00
1.3.1.2 Project Manager Applicant							
1.3.1.2.2 Lao PDR	Per diem	140	100,00	14 000,00	Per diem	56	8 400,00
1.3.1.2.3 France	Per diem	5	170,00	850,00	Per diem	0	850,00
1.3.2 Seminar/conference participants	Per diem	0	0,00	0,00	Per diem	0	0,00
Subtotal Human Resources				89 495,00			53 795,00
2. Travel							
2.1. International travel							
2.1.1 Europe / Asia	Per flight	0	1 200,00	0,00	Per flight	0	0,00
2.1.2 Asia / Europe	Per flight	2	1 200,00	2 400,00	Per flight	0	2 400,00
2.1.3 Europe / Europe	Per flight	0	500,00	0,00	Per flight	0	0,00
2.1.4 Asia/Asia	Per flight	9	250,00	2 250,00	Per flight	3	1 500,00
2.2 Local transportation (over 200 km)	Per month	0	0,00	0,00	Per month		0,00
Subtotal Travel				4 650,00			3 900,00
3. Equipment and supplies							
3.1 Purchase or rent of vehicles	Per day	15	60,00	900,00	Per vehicle	5	600,00
3.2 Furniture, computer equipment							
3.2.1 Personal Computer, laptop and peripherals		1	1 500,00	1 500,00		1	0,00
3.2.2 Color printer network laser		1	500,00	500,00		1	
3.2.3 Video equipment (3CCD camera DV, Storage, Editor...)		0	0,00	0,00		0	
3.2.4 Photographic equipment (1 SLR Camera, 2 lens, Bag, tripod, Digitizer, scanner...)		1	3 000,00	3 000,00		1	
3.2.5 Video projector		1	1 500,00	1 500,00		1	
3.3 Spare parts/equipments for machines, tools		0	0,00	0,00		0	0,00
Subtotal Equipment and supplies				7 400,00			600,00
4. Local office/project costs							
4.1 Vehicle costs	Per month	0	0,00	0,00	Per month		0,00
4.2 Office rent	Per month	0	0,00	0,00	Per month		0,00
4.3 Consumables - office supplies	Per month	0	0,00	0,00	Per month		0,00
4.4 Other services (tel/fax, electricity/heating, maintenance)	Per month	0	0,00	0,00	Per month		0,00
Subtotal Local office/project costs				0,00			0,00
5. Other costs, services							
5.1 Publications		0	0,00	0,00		0	0,00
5.2 Studies, research		300	73,00	21 900,00		100	14 600,00
5.3 Auditing costs		0	1 500,00	0,00		0	0,00
5.4 Evaluation costs		0	0,00	0,00			0,00
5.5 Translation, interpreters	Per Year	3	1 000,00	3 000,00	Per Year	1	2 000,00
5.6 Financial services (bank guarantee costs etc.)		0	0,00	0,00			0,00
5.7 Costs of conferences/seminars	Provision	1	2 000,00	2 000,00		0	2 000,00
Subtotal Other costs, services				26 900,00			18 600,00
6. Real Estate and works							
6.1 Purchase of land		0	0,00	0,00			0,00
6.2 Purchase of building		0	0,00	0,00			0,00
Subtotal Real estate and works				0,00			0,00
7. Other		0	0,00	0,00			0,00
Subtotal Other				0,00			0,00
8. Subtotal direct project costs (1.-7.)				128 445,00			76 895,00
9. Administrative costs (maximum 7 % of 8., total direct eligible project costs)				8 950,00			5 350,00
10. Total direct eligible project costs (8.+ 9.)				137 395,00			82 245,00
11. Contingency reserve* (maximum 5 % of 10., direct eligible project cost)							
12. Total costs(10.+11.)				137 395,00			82 245,00

Budget for NAFRI				All Years				Year 1				Year 2 & 3			
Expenses	Unit	# of units	Unit rate (in €)	Costs (in €)	Unit	# of units	Unit rate (in €)	Costs (in €)	Unit	# of units	Unit rate (in €)	Costs (in €)			
1. Human Resources															
1.1 Salaries (gross amounts, local)															
1.1.1 NAFRI Technician	Per day	525	20,00	10 500,00	Per day	210	20,00	4 200,00	Per day	315	20,00	6 300,00			
1.1.2 NAFRI Technician	Per day	525	20,00	10 500,00	Per day	210	20,00	4 200,00	Per day	315	20,00	6 300,00			
1.1.3 Administrative/ support Staff															
1.2 Salaries (gross amounts, expat/int. staff)															
1.2.1 NAFRI Senior Expert (Software Developer)	Per day	105	60,00	6 300,00	Per day	45	60,00	2 700,00	Per day	60	60,00	3 600,00			
1.2.2 NAFRI Senior Expert (Trainer)	Per day	300	60,00	18 000,00	Per day	120	60,00	7 200,00	Per day	180	60,00	10 800,00			
1.2.2 NAFRI Senior Expert (Agronomist)	Per day	300	60,00	18 000,00	Per day	120	60,00	7 200,00	Per day	180	60,00	10 800,00			
1.3 Per diems for missions/travel															
1.3.1 Abroad (project staff)															
1.3.1.1 NAFRI Senior Expert															
1.3.1.1.1 France	Per diem	5	170,00	850,00	Per diem	0	170,00	0,00	Per diem	5	170,00	850,00			
1.3.2 Local (project staff)															
1.3.2.1 NAFRI Senior Expert (Trainer)															
1.3.2.1.1 Lao PDR	Per diem	150	32,00	4 800,00	Per diem	50	40,00	2 000,00	Per diem	100	40,00	4 000,00			
1.3.2.1 NAFRI Senior Expert (Agronomist)															
1.3.2.1.1 Lao PDR	Per diem	150	32,00	4 800,00	Per diem	50	40,00	2 000,00	Per diem	100	40,00	4 000,00			
1.3.2.2 NAFRI Technician															
1.3.2.2.1 Lao PDR	Per diem	150	32,00	4 800,00	Per diem	50	32,00	1 600,00	Per diem	100	32,00	3 200,00			
1.3.3 Seminar/conference participants	Per diem	0	0,00	0,00	Per diem	0	0,00	0,00	Per diem	0	0,00	0,00			
Subtotal Human Resources				78 550,00				31 100,00				49 850,00			
2. Travel															
2.1 International travel															
2.1.1 Asia / Europe	Per flight	1	1 200,00	1 200,00	Per flight	0	1 200,00	0,00	Per flight	1	1 200,00	1 200,00			
2.2 Local transportation (over 200 km)	Per month	2	400,00	800,00	Per month	1	400,00	400,00	Per month	1	400,00	400,00			
Subtotal Travel				2 000,00				400,00				1 600,00			
3. Equipment and supplies***															
3.1 Purchase or rent of vehicles	Per Day	15	60,00	900,00	Per vehicle	5	60,00	300,00	Per vehicle	10	60,00	600,00			
3.2 Furniture, computer equipment															
3.2.1 Personal Computers, laptops and peripherals	9 units	1	9 000,00	9 000,00		1	9 000,00	9 000,00				0,00			
3.2.2 Color printer network laser		1	2 500,00	2 500,00		1	2 500,00	2 500,00							
3.2.3 Video equipment (3CCD camera DV, Storage, Editor...)		1	3 000,00	3 000,00		1	3 000,00	3 000,00							
3.2.4 Photographic equipment (1 SLR Camera, 2 lens, Bag, tripod, Digitizer, scanner...)		1	3 000,00	3 000,00		1	3 000,00	3 000,00							
3.2.5 Video projector		1	1 500,00	1 500,00		1	1 500,00	1 500,00							
3.3 Spare parts/equipments for machines, tools	0	0,00	0,00	0,00				0,00				0,00			
3.4 Other	0	0,00	0,00	0,00				0,00				0,00			
Stereo-microscope and balance	1	2 400,00	2 400,00	2 400,00	1	2 400,00	2 400,00	2 400,00							
Subtotal Equipment and supplies				22 300,00				21 700,00				600,00			
4. Local office/project costs															
4.1 Vehicle costs	Per month	27	300,00	8 100,00	Per month	9	300,00	2 700,00	Per month	18	300,00	5 400,00			
4.2 Office rent	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
4.3 Consumables - office supplies	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
4.4 Other services (tel/fax, electricity/heating, maintenance)	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
Subtotal Local office/project costs				8 100,00				2 700,00				5 400,00			
5. Other costs, services															
5.1 Publications**	0	3 000,00	0,00	0,00	0	3 000,00	0,00	0,00	0	3 000,00	0,00	0,00			
5.2 Studies, research**	0	0,00	0,00	0,00				0,00				0,00			
5.3 Auditing costs	0	0,00	0,00	0,00				0,00				0,00			
5.4 Evaluation costs	0	0,00	0,00	0,00				0,00				0,00			
5.5 Translation, interpreters	1	1 000,00	1 000,00	1 000,00	0	1 000,00	0,00	0,00	1	1 000,00	1 000,00	1 000,00			
5.6 Financial services (bank guarantee costs etc.)	0	0,00	0,00	0,00				0,00				0,00			
5.7 Costs of conferences/seminars**	3	2 000,00	6 000,00	6 000,00	1	2 000,00	2 000,00	2 000,00	2	2 000,00	4 000,00	4 000,00			
5.8 Photo exhibition, posters, videos	1	2 000,00	2 000,00	2 000,00				0,00	1	2 000,00	2 000,00	2 000,00			
5.9 Publishing of training modules	1	4 000,00	4 000,00	4 000,00				0,00	1	4 000,00	4 000,00	4 000,00			
5.10 CD-ROM publication	1	1 000,00	1 000,00	1 000,00				0,00	1	1 000,00	1 000,00	1 000,00			
5.9 Bibliography	1	1 000,00	1 000,00	1 000,00	1	1 000,00	1 000,00	1 000,00				0,00			
Subtotal Other costs, services				15 000,00				3 000,00				12 000,00			
6. Real Estate and works****															
6.1 Purchase of land	0	0,00	0,00	0,00				0,00				0,00			
6.2 Purchase of building	0	0,00	0,00	0,00				0,00				0,00			
6.3 Construction works	0	0,00	0,00	0,00				0,00				0,00			
Subtotal Real estate and works				0,00				0,00				0,00			
7. Other															
Subtotal Other				0,00				0,00				0,00			
8. Subtotal direct project costs (1.-7.)															
				125 950,00					58 900,00						
9. Administrative costs (maximum 7 % of 8., total direct eligible project costs)				8 815,00					3 955,00						
10. Total direct eligible project costs (8.+ 9.)				134 765,00					62 855,00						
11. Contingency reserve* (maximum 5 % of 10., direct eligible project cost)															
12. Total costs(10.+11.)				134 765,00					62 855,00						

Budget for WU				All Years				Year 1				Year 2 & 3			
Expenses	Unit	# of units	Unit rate (in €)	Costs (in €)	Unit	# of units	Unit rate (in €)	Costs (in €)	Unit	# of units	Unit rate (in €)	Costs (in €)			
1. Human Resources															
1.1 Salaries (gross amounts, local)															
1.1.1 Technical	Per day	0	0,00	0,00	Per day			0,00	Per day			0,00			
1.1.2 Administrative/ support Staff	Per day	0	0,00	0,00	Per day			0,00	Per day			0,00			
1.2 Salaries (gross amounts, expat/int. staff)															
1.2.1 WU Senior Expert	Per day	75	370,00	27 750,00	Per day	30	370,00	11 100,00	Per day	45	370,00	16 650,00			
1.3 Per diems for missions/travel															
1.3.1 Abroad (project staff)															
1.3.1.1 WU Senior Expert															
1.3.1.1.1 France	Per diem	5	170,00	850,00	Per diem	0	170,00	0,00	Per diem	5	170,00	850,00			
1.3.1.1.2 Lao PDR	Per diem	30	100,00	3 000,00	Per diem	15	100,00	1 500,00	Per diem	15	100,00	1 500,00			
1.3.2 Local (project staff)															
1.3.3 Seminar/conference participants	Per diem	0	0,00	0,00	Per diem			0,00	Per diem			0,00			
Subtotal Human Resources				31 600,00				12 600,00				19 000,00			
2. Travel															
2.1. International travel															
2.1.1 Europe / Asia	Per flight	4	1 200,00	4 800,00	Per flight	2	1 200,00	2 400,00	Per flight	2	1 200,00	2 400,00			
2.1.2 Europe / Europe	Per flight	1	500,00	500,00	Per flight	0	500,00	0,00	Per flight	1	500,00	500,00			
2.2 Local transportation (over 200 km)	Per month	0	0,00	0,00	Per month	0	300,00	0,00	Per month	0	300,00	0,00			
Subtotal Travel				5 300,00				2 400,00				2 900,00			
3. Equipment and supplies***															
3.1 Purchase or rent of vehicles	Per vehicle	15	60,00	900,00	Per vehicle	5	60,00	300,00	Per vehicle	10	60,00	600,00			
3.2 Furniture, computer equipment															
3.2.1 Personal Computer, laptop and peripherals		1	1 500,00	1 500,00		1	1 500,00	1 500,00				0,00			
3.2.2 Color printer network laser		0	0,00	0,00		0	0,00	0,00							
3.2.3 Video equipment (3CCD camera DV, Storage, Editor...)		0	0,00	0,00		0	0,00	0,00							
3.2.4 Photographic equipment (1 SLR Camera, 2 lens, Bag, tripod, Digitizer, scanner...)		0	0,00	0,00		0	0,00	0,00							
3.2.5 Video projector		0	0,00	0,00		0	0,00	0,00							
3.3 Spare parts/equipments for machines, tools		0	0,00	0,00		0	0,00	0,00				0,00			
3.4 Other		0	0,00	0,00		0	0,00	0,00				0,00			
Subtotal Equipment and supplies				2 400,00				1 800,00				600,00			
4. Local office/project costs															
4.1 Vehicle costs	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
4.2 Office rent	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
4.3 Consumables - office supplies	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
4.4 Other services (tel/fax, electricity/heating, maintenance)	Per month	0	0,00	0,00	Per month			0,00	Per month			0,00			
Subtotal Local office/project costs				0,00				0,00				0,00			
5. Other costs, services															
5.1 Publications**		1	1 500,00	1 500,00				0,00		1	1 500,00	1 500,00			
5.2 Studies, research**	Per day	0	0,00	0,00	Per day			0,00	Per day			0,00			
5.3 Auditing costs		0	0,00	0,00				0,00				0,00			
5.4 Evaluation costs		0	0,00	0,00				0,00				0,00			
5.5 Translation, interpreters		0	0,00	0,00				0,00	Per language			0,00			
5.6 Financial services (bank guarantee costs etc.)		0	0,00	0,00				0,00				0,00			
5.7 Costs of conferences/seminars**		0	0,00	0,00				0,00				0,00			
Subtotal Other costs, services				1 500,00				0,00				1 500,00			
6. Real Estate and works****															
6.1 Purchase of land		0	0,00	0,00				0,00				0,00			
6.2 Purchase of building		0	0,00	0,00				0,00				0,00			
6.3 Construction works		0	0,00	0,00				0,00				0,00			
Subtotal Real estate and works				0,00				0,00				0,00			
7. Other		0	0,00	0,00				0,00				0,00			
Subtotal Other				0,00				0,00				0,00			
8. Subtotal direct project costs (1.-7.)				40 800,00	16 800,00				24 000,00						
9. Administrative costs (maximum 7 % of 8., total direct eligible project costs)				2 840,00	1 160,00				1 680,00						
10. Total direct eligible project costs (8.+ 9.)				43 640,00	17 960,00				25 680,00						
11. Contingency reserve* (maximum 5 % of 10., direct eligible project cost)															
12. Total costs(10.+11.)				43 640,00	17 960,00				25 680,00						

4. Expected sources of funding

		Amount	Percentage
		EUR	of total
			%
Applicant's financial contribution		9 800,00	3,10%
Commission contribution sought in this application		300 000,00	95,00%
Contribution(s) from other European Institutions or EU Member States			
			0,00%
			0,00%
Contributions from other organisations:			
<i>Name</i>	<i>Conditions</i>		
NAFRI		0,00	0,00%
WU	Part of Salaries	6 000,00	1,90%
TOTAL CONTRIBUTIONS		315 800,00	100,00%
Direct revenue from the Action		0,00	0,00%
OVERALL TOTAL		315 800,00	100,00%

II. THE APPLICANT

1. Identity

Full legal name (business name):	Centre de Coopération Internationale en Recherche Agronomique pour le Développement
Acronym (where applicable)	CIRAD
Legal status ¹⁰	State-owned industrial and commercial enterprise (EPIC) (Not-for-profit organisation)
VAT registration number (where applicable):	FR 84 331596270
Official address	42 Rue Scheffer F 75116 Paris – FRANCE
Postal address	TA 70/09 Avenue Agropolis, 34398 Montpellier Cedex 5, France
Contact person	Mr Marco WOPEREIS
Telephone number	00.33.4.67.61.57.79
Fax number	00.33.4.67.61.56.32
E-mail	dirca@cirad.fr
Internet site	http://www.cirad.fr

2. Bank details

The bank must be located in the country where the applicant is registered.

Account name	CIRAD CA
Account number	00010047176
Sort code	21
IBAN code (optional)	FR 7630004008920001004717621
Bank name	BNP Agence Paris Bas Etoile Entreprise
Address of bank	83 Avenue Charles De Gaulle, 92200 Neuilly sur Seine
Name of signatory/ies	Benoit CERVELLO
Position of signatory/ies	Head Account of CIRAD CA Department

NB: Before the grant contract is signed, the applicants selected will have to supply a financial identification form using the model in Annex V to the contract, certified by the bank named above.

¹⁰ e.g. state whether the applicant is a for-profit or not-for-profit organisation.

Correspondent bank (where relevant)

Account name	
Account number	
Sort code	
IBAN code (optional)	
Bank name	
Address of bank	

3. Description of applicant (one page maximum)

3.1 When was your organisation founded and when did it start its activities?

The **Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)**, French scientific organisation CIRAD specializing in development-oriented agricultural research for tropical and subtropical regions. is a State-owned industrial and commercial enterprise (EPIC), which was established in 1984.

3.2. What are the main activities of your organisation at present?

CIRAD has seven departments and 60 units : 36 internal research units (UPR), 3 service units (US), 18 joint research units (UMR) and 3 cooperative research units (URP). It has a mandate to contribute to the development of tropical, subtropical and Mediterranean countries through research, experimentation, training, appraisals and scientific and technical information. Its activities focus on agronomic, veterinary, forestry and agrifood operations. CIRAD is keen to respond to the main challenges faced worldwide – overcoming poverty and ensuring food security and rational management of renewable resources – and is helping, through its work, to increase the competitiveness of products from tropical countries. To this end, it has set itself the following targets:

To develop the agricultural, animal production and forestry sectors

Improving biological material. CIRAD uses the most modern methods and tools available for exploiting biological diversity, for genome studies and for multiplying healthy, high-yielding plant material. It has teams specializing in genetic resource evaluation and biodiversity conservation.

Developing agronomic production techniques. To ensure a sustainable increase in productivity, improve product quality and control cost prices, CIRAD develops environment-friendly production techniques adapted to different socio-economic and climatic conditions.

Protecting crops. To reduce the losses caused by pests and protect the environment, while keeping costs down, CIRAD takes an integrated pest management (IPM) approach combining the use of resistant varieties and biological control methods, which cut pesticide use.

Increasing the quantity and quality of animal products. CIRAD is involved in developing and monitoring production sectors (genetics, zootechny: milk, meat, draught), in animal health protection and in natural or cultivated fodder resource management.

Developing new technologies. CIRAD develops specific tools for more efficient use of agricultural, animal and forest products, in line with market demand. In this way, it facilitates the emergence and survival of small- and medium-scale processing companies.

Designing the tools and methods required for sustainable natural landscape management. CIRAD is keen to strike the best compromises between production concerns and biodiversity conservation considerations, by integrating institutional, land ownership, ecological, economic and social as well as silvicultural and faunal approaches.

To manage the landscape and support development

A global development approach ensures more effective application of scientific and technical innovations. To this end, CIRAD works on several scales, from plot to region, taking account of the views of all those involved in development (planters, stock farmers, foresters, professional groups,

governments, industrialists, donors, etc.). It also takes part in the resulting technology transfer projects.

To provide scientific and technical training and information

Training young scientists is one of CIRAD's main concerns (it hosts doctoral and post-doctoral students, amongst others). It also runs training courses intended for teaching and supervisory staff and technicians.

Scientific and technical information is one of CIRAD's strongest points. It has a highly advanced computer system for managing a bibliographical data bank on agriculture in tropical and subtropical regions. It provides information services for political and economic decision-makers and technical users.

3.3. List of the management board / committee of your organisation

Name	Profession	Sex	Position	Years on the board
M. P. DEBRE	Pitié-Salpêtrière Hospital	M	Chair	2
M. A. GRASSIN	Ministry for Cooperation, Development and Francophony	M	Delegate	1
M. D.HOFFSCHIR	Ministry for Research	M	Delegate	2
M. JP. MOLERE	Ministry for the Budget	M	Delegate	Nominated 08/12/2005
M. M. THIBIER	Ministry of Agriculture and Fisheries	M	Delegate	Nominated 08/12/2005
M. P. BRUNHES	Ministry for Overseas Departments and Territories	M	Delegate	Nominated 08/12/2005
M. JF. GIRARD				Nominated 08/12/2005
Ms N.H. YAYA LANSRY		F	External	Nominated 08/12/2005
Ms M. GUILLOU	Institut National de la Recherche Agronomique (INRA)	F	INRA President	3
Ms L. TUBIANA	Institut du développement durable et des relations internationales (IDDRI)	F	IDDRI Director	5
M. J-M. SEVERINO	Agence française de développement (AFD)	M	AFD General Director	4
Ms C. LAMBERT	Researcher	F	Staff representative	Nominated 08/12/2005

Name	Profession	Sex	Position	Years on the board
Ms. M. ANTONA	Researcher	F	Staff representative	Nominated 08/12/2005
M. D'AQUINO	Researcher	M	Staff representative	Nominated 08/12/2005
M.M. BENOIT CATTIN	Researcher	M	Staff representative	Nominated 08/12/2005
M. T. DURAND-GASSELIN	Researcher	M	Staff representative	Nominated 08/12/2005
M. L. MAGGIA	Researcher	M	Staff representative	Nominated 08/12/2005
M. P. VAAST	Researcher	M	Staff representative	Nominated 08/12/2005

4. Capacity to manage and implement actions

4.1. Experience of similar actions

Maximum 1 page per action. Please provide a detailed description of actions managed by your organisation over the past five years in the fields covered by this programme, taking care to identify for each action:

1- Development of a CD ROM for the identification of the major weed species of Reunion Island

(a) Object and location

Weed species are harmful to other plants as they reduce their productivity. At Reunion Island, many herbicides are utilised (in variety and in quantity). However, there are no educational tools assembling knowledge allowing to recognize such weeds in the field.

As such, in co-operation with representatives of Reunion Islands, CIRAD has developed a CD ROM which helps to recognize the major weed species present at Reunion Island.

This practical tool provides an inventory of the principal weeds encountered together with an illustrated description. It permits to recognize the plant by a robot portrait, photographic illustrations and botanical line drawings. A module on how to implement a chemical control is also added to the CD ROM.

(b) Results of the action

Development and production of 1000 CD Rom.

(c) Organisation's role (leader, partner) and level of involvement in the action

Leader

(d) Cost of the action

130 220 EUR

(e) Donors to the action

1. Bureau des investissements de l'Etat et de l'Europe Secrétariat (FIDOM,) Préfecture de la Réunion

- Address : Place du Barachois 97400 Saint-Denis
- E-mail: courrier@reunion.pref.gouv.fr
- Telephone number: 02 62 40 77 77
- Amount contributed: 25 000 EUR

2. Fonds Européen de Développement Régional (FEDER), Préfecture de la Réunion

- Address : Place du Barachois 97400 Saint-Denis
- E-mail: courrier@reunion.pref.gouv.fr
- Telephone number: 02 62 40 77 77

- Amount contributed: 35 856 EUR

3. *CIRAD*

- Amount contributed: 69 364 EUR

II- IRRICANE: Development of an advice program for sugar cane irrigation adapted to a heterogeneous soil-plant-climate environment

(a) Object and location

IRRICANE is a irrigation control software, specifically developed for spray irrigation at plot level (or even smaller) and/or homogeneous irrigation units.

IRRICANE estimates the available quantity of soil water and the provisional lack of water for the following days. It takes into account different parameters, e.g. needs of the plant, soil characteristics, provisions of the climate conditions. Based on the input of such parameters, it issues an irrigation calendar for the following days.

IRRICANE can be adapted to any situation, as to take into account the specific constraints.

(b) Results of the action

- Development of the IRRICANE software
- Training for the users of the software

(c) Organisation's role (leader, partner) and level of involvement in the action

Leader

(d) Cost of the action

141 500 EUR

(e) Donors to the action

1. Préfecture de la Réunion

- Address: Place du Barachois 97400 Saint-Denis
- E-mail: courrier@reunion.pref.gouv.fr
- Telephone number: 02 62 40 77 77
- Amount contributed: 70 700 EUR

2. Fonds européen d'orientation et de garantie agricole (FEOGA), Commission européenne - Direction générale de l'Agriculture

- Address: B-1049 Bruxelles
- Website: http://europa.eu.int/comm/agriculture/fin/index_fr.htm
- Telephone number: + 32 2 295 29 63
- Amount contributed: 70 800 EUR

III- Improving the living conditions of poor farmers on the outskirts of Vientiane (Laos) through the development of a network to supply the town centre with quality agricultural products

(a) Object and location

The project will contribute to the improvement of the living conditions of the inhabitants of the outskirts of Vientiane town (Laos). The specific objective is to increase the incomes of the population living in Xaythani district by developing a network to supply the town of Vientiane with quality vegetables, flowers and mushrooms. For this, the project aims to transfer means and technology to the farmers by creating a demonstration farm where training sessions can be organised. The farm will include a storage centre and a cold room which will be made available to the farmers. The principal market will be the large hotels and restaurant of the capital. The target group will be composed of 100 families selected by the district authorities. The farm and its facilities will be run as a co-operative by the farmers and their families.

(b) Results of the action

- Development of a network;
- Increased production of vegetables, flowers and mushrooms in Xaythani district;
- Improved quality of these products and their adaptation to the demands of the urban market;
- Increased and more stable marketing of vegetables in Vientiane.

(c) Organisation's role (leader, partner) and level of involvement in the action

Partner.

(d) Cost of the action

756 113 EUR

(e) Donors to the action

1. European Commission – EuropeAid Co-operation Office - Asia Urbs Programme

- Address : Loi 41 3 / 49 – 1049 Brussels
- E-mail: europeaid-asia-urbs@cec.eu.int
- Telephone number: +32 (0)2 298 47 31
- Amount contributed: 490 934 EUR

2. Partners of the action

Lao Prime Minister's Office Committee for Investment and Cooperation Office of International Cooperation, District of Xaythani – Lao PDR, Test-Technology, Engineering & Strategy – Lao PDR, Municipality of Gembloux – Belgium, Municipality of Epinal – France, Aide au Développement Gembloux NGO – Belgium, FUSAGx – Faculté Universitaire des Sciences Agronomiques de Gembloux – Belgium, ETS Amarger Arguel – France, Pulmic Grupo Sanz Hnos - Spain, Flanammat – Belgium, CIRAD – France.

- Total amount contributed by the partners: 265 179 EUR

IV- DORAS : Training for research and by research

(a) Object and location

The DORAS project is about the development of an annual training & research programme in cooperation with Kasetsart – Thailand university. The various components of this training programme are managed by “training and research” projects. For 2001, they address the following themes:

- Cotton
- Rubber (hevea)
- Deer
- Suburban agriculture

Cotton Project

This project aims at :

- Intensifying the research and training activities for development countries of the “Pool of Excellence” put in place at the Kasetsart university with regards to the management of cotton culture and improvement of cotton varieties. Research activities on “integrated control” are pursued.
- Re-enforcing the common activities, exchanges and training at the “Cotton Research Consortium” in South East Asia, thanks to the pool of excellence (see above), serving as a basis for training and scientific assistance to the National Cotton Research Centres of the countries of the region.

Rubber project

Research project aiming at improving the rubber tree productivity.

This project is composed of three parts: eco-physiology, genetic cartography, genetic engineering.

Suburban agriculture project

This programme aims at elaborating tools providing help for negotiation between representatives of suburban development and agricultural growers of the urban/suburban sector.

« Deer » project

This project aims at contributing to the development of tools and methods for studying, management and conservation of the animal biodiversity in South East Asia. It addresses in particular the characterisation and the genetic differentiation of species and races. The developed approach and methodology are transferable to other animal species, domestic or wild, with high economic and/ or patrimonial value.

(b) Results of the action

Cotton project

- *Research Actions:*

- Better understand the biodiversity of cotton in South East Asia and improve the knowledge with regards to bio-ecology of species in order to develop strategies of integrated control which are adapted to the local production conditions and permit to maximise the profitability of auxiliary species, naturally present in agro-ecosystems.
- Pursue the creation of varieties of high fibre quality adapted to local production conditions.
- *Management and coordination of the regional Consortium:*
 - Training : PhD in technology and entomology
 - Follow-up and assistance to research projects

Rubber project

- *Organisation & Coordination of :*

- PhD in eco-physiology and genetic cartography
- Training for new technologies
- Follow-up and assistance to research projects

Suburban agriculture project

- *Research Actions:*

- First phase of characterization of suburban agriculture, its constraints and its needs

- Establishment of a training/vulgarisation publication for local farmers
- *Organisation and coordination of:*
 - Training at new research technologies for teachers and researchers
 - Training at elaborating and realising a research programme
 - Assistance and training in the field of the treatment of agricultural waste in suburban zones

« Deer » project

- *Research Actions:*
 - Perfecting of a genetic characterisation tool
 - Research on molecular markers (microsatellites) with particular deer species
 - Perfecting of microsatellite tests allowing for the quantification of the level of crossbreeding for particular deer species
 - Comparison of molecular microsatellite tools
- *Organisation & coordination of :*
 - Training on molecular genetics
 - Scientific follow-up of trainees
 - Seminar
 - Audiovisual presentations

(c) Organisation's role (leader, partner) and level of involvement in the action

Leader

(d) Cost of the action

260 000 EUR

(e) Donors to the action

1. *French Ministry of Foreign Affairs (MAE)*

- Address (Direction générale de la Coopération internationale et du Développement):
244, Bd Saint-Germain, 75007 Paris
- Website: www.france.diplomatie.fr
- Telephone number: + 33 1 43 17 90 00
- Amount contributed: 72 260 EUR

2. *Remaining part of the budget through contributions from partner institutions, i.e.:*

- CIRAD,
- Kasetsart University,
- Rubber research Institute of Thailand,
- Cotton Research Consortium in South East Asia (SEACRC)) : Indonesia (RITFC), Laos (CNRA), Myanmar (MCSE), Philippines (CODA), Thailand (DOA-University of Kasetsart), Vietnam (CRC/VCC).

V- OSCAR: Open Source Simple Computer for Agriculture in Rural Areas

(a) Object and location

The project aims to initiate cooperation between European and South Asian institutions for bringing Information Technology & Communication to rural areas. This is done by helping to address the issue of declining agricultural productivity in South Asia by proposing a tool for decision-making in weed identification and control. This decision-making tool will target farmers of the Indo-Gangetic Plains (IGP) at the village level and will effectively address the issues of local language by taking into account the cultural diversity of the populations of the targeted area. An existing software for species identification (IDAO) will be adapted to run on a low-cost computing device (a Personal Digital Assistant (PDA), working with Linux – an Open Source Operating System) that can be shared among farmers of a local community. A model database for identification and control of a set of the most important weeds of the IGP will be developed for integration with the species identification software. Perception of the tool by farmers will also be assessed in order to improve the tool's usage and appropriateness at farmer community level. Finally, at the end of 30 months, this project in its final workshop will formulate recommendations and formats for similar decision-making tools, in addition to a small prototype.

(b) Results of the action

- Initiation of a long-term cooperation between European and South Asian institutions involved in IT&C applications in agriculture, through a project based on the transfer of IT&C to the farmer level;
- Contribution to the enhancement of rice and wheat productivity in the Indo-Gangetic plains by enabling farmers' decision-making capacity in terms of crop management with specific focus on weed identification and control;
- Improvement of agricultural knowledge sharing in rural areas through IT&C;
- Promotion of the development of Open Source based IT&C tools for southern countries through a transfer of know-how between Europe and Asia;
- Adaptation of IDAO, an existing multimedia species identification software, to a low-cost Open Source based computing device that may be used in rural areas;
- Mutual agreement on data standards and protocols for the exchange of species descriptions, terminology and drawings between a central database and end-users;
- Establishment of a central web-based database containing information on weed species and control which should make it possible to keep software, drawings, descriptions and databases up to date;
- Establishment of a short list of the weed species of the region and preparation of a prototype of an application to identify and describe them, and propose appropriate control measures.

(c) Organisation's role (leader, partner) and level of involvement in the action

Partner

(d) Cost of the action

456 187,72 EUR

(e) Donors to the action

1) European Commission – EuropeAid Co-operation Office – ASIA IT&C

- Address:
EU-Asia IT&C II Programme Secretariat (Europe)
EuropeAid Co-operation Office
Unit D/2, Loi 41 - Office 3/101
B-1049 Brussels, Belgium
- E-mail : europaaid-asia-itc@cec.eu.int
- Telephone number: +32 2 298 48 73
- Amount contributed: 199 927 EUR
-

2) Rice Wheat Consortium (RWC) for the Indo-Gangetic Plains

- Address: CIMMYT India Office, NASC Complex, Pusa, New Delhi 110012
- E-mail: r.gupta@cgiar.org
- Telephone number: + 91 11 25 82 29 40

- Amount contributed: 72 578,10 EUR

3) *Centre for Innovation Studies (CIS) – University of Wageningen*

- Address: Hollandseweg 1, NL-6706 KN Wageningen The Netherlands
- E-mail: Rico.lie@wur.nl
- Telephone number: + 31 317 484310
- Amount contributed: 5 729,85

4) *French Institute of Pondicherry*

- Address: 11 Saint louis Street, Pondicherry 605 001, India
- E-mail: ifpdir@ifpindia.org
- Telephone number: + 91 (413) 233 41 68
- Amount contributed: 108 376,02 EUR

5) *CIRAD*

- Amount contributed: 69 576,75 EUR

VI- Development of a Geographical Information System (GIS) in order to optimise the management of agricultural surfaces

(a) Object and location

Farmers, growers' associations, professional institutions intervening in the agricultural development, and public bodies of Guadeloupe, are in need of coherent, "real time", geographical field data (organised data which can be disseminated to partners worldwide).

The project aims at putting in place such an information network.

(b) Results of the action

- Federation and coordination of entities collecting information,
- Proposal and test of a methodology elaborated in different test zones
- Information network

(c) Organisation's role (leader, partner) and level of involvement in the action

Leader

(d) Cost of the action

492 825 EUR

(e) Donors to the action

1. Préfecture de Guadeloupe (région)

- Address : Rue Lardenoy 7100 BASSE-TERRE
- E-mail: : prefecture.region.guadeloupe@wanadoo.fr
- Website : <http://www.guadeloupe.pref.gouv.fr>
- Telephone number: (33) 05 90 99 39 00
- Amount contributed: 123 206 EUR

2. Fonds européen d'orientation et de garantie agricole(FEOGA), Commission européenne - Direction générale de l'Agriculture

- Address : Rue de la Loi, B-1049 Bruxelles
- Website : http://europa.eu.int/comm/agriculture/fin/index_fr.htm
- Telephone number: +32 2 295 29 63
- Amount contributed: 369 619 EUR

VII- Lao Plantation Forestry Project

(a) Object and location

The Lao Plantation Forestry Project (1995–2001) aims to improve the livelihoods of the rural population through tree plantation. The main objective is to establish more than 12,000 ha of tree farming with fast growing tree species (*Acacia* sp. And *Eucalyptus*), by the rural communities, in unstocked and degraded forest lands along the Mekong River in Laos.

(b) Results of the action

- Improvement of the living standards of local communities. The final production target is the regional market for wood based panels industries, wood pulp mills but also service wood and fuel wood for the domestic market.
- Development of tools for site identification, planning, monitoring (environmental monitoring, socioeconomical profits), growth and productivity performance, management and determination of adapted community based forest plantation management. To this end, more than 500 hectares of experimental plantations have been established concomitantly, for optimal selection of the most suitable species and provenances.

(c) Organisation's role (leader, partner) and level of involvement in the action

Project Leader. CIRAD supplied the technical assistance for the implementation of this project. In specific: the infrastructure (access road rehabilitation, bridged renovation), environmental impact assessment, the setting up of back-up silvicultural trials and the technology transfer and extension.

(d) Cost of the action

1 017 801 USD

(e) Donors to the action

Asian Development Bank

- Address (Headquarters): 6 ADB Avenue, Mandaluyong City, 0980 Manila, Philippines
- E-mail: information@adb.org; website : www.adb.org
- Telephone number: + 632 632 4444
- Amount contributed: 1 017 801 USD

The plantations are established with the financial assistance of micro-credits proposed to small holders and small private enterprises.

VIII- Exploring the genetic diversity of rice-blast host-pathogen interactions in China: a tool to improve breeding for resistance to blast disease

(a) Object and location

The RESIDIV project aims at improving our knowledge of rice resistance diversity and of the diversity of the pathogen in its ability to attack different varieties.

China

(b) Results of the action

- Increase of knowledge of rice resistance diversity and of the diversity of the pathogen in its ability to attack different varieties (avirulence / virulence)
- Characterisation and identification of new resistance genes

The RESIDIV project results will allow breeders to choose the most suitable resistance genes and the best way to use them. This will ensure resistance durability.

(c) Organisation's role (leader, partner) and level of involvement in the action

Project leader; level of involvement about 40%

(d) Cost of the action

1 426 315 EUR

(e) Donors to the action

1. European Commission (DG Recherche – 5th framework)

- Address : Rue de la loi 200 B – 1049 Bruxelles
- E-mail: inco-contract@cec.eu.int
- Telephone number: +32 2 299 11 11 (standard)
- Amount contributed: 897 958 EUR

2. Centre National de la Recherche Scientifique (CNRS)

- Address : 2, Avenue Albert Einstein, 69100 Villeurbanne, France
- Contact : Service Gestion Contrats de recherche – Mad Claudine Morel
- E-mail: claudine.morel@rhone-alpes.cnrs.fr
- Telephone number : 04 72 44 56 92
- Amount contributed : 274 199 EUR

3. CIRAD (Annual Crops Department)

- Amount contributed : 254 158 EUR

IX- Economic and policy analysis for the eco-regional approach in south-east Asia (ECOPOL)

(a) Object and location

In more and more countries, existing decision-making mechanisms for public intervention are increasingly questioned due to pressure for market liberalisation, decentralisation processes and the increasing role of the civil society. However, while the traditional role of government is challenged, few methods have been proposed to enable the design of viable alternatives.

In an attempt to overcome this deficiency, the project aims at developing and testing in Vietnam and Indonesia, a method to design efficient public decisions management processes.

In accordance with stakeholders and policy makers, the method has been applied to the Rice and Pig commodity chains in Northern Vietnam.

(b) Results of the action

- Development and use of policy analysis and policy definition support tools : PACT (Pro-Active Conciliation Tools), Prospective Analysis Workshops, ...
- Development of an integrated policy making support approach: the RAINAPOL approach (Reconciling Actors preferences IN Agricultural Policies)
- Various trainings for local researchers and analysts
- Generation and sharing of strategic information on the situation of the pig and rice commodity chain in Northern Vietnam
- Collective definition of sectoral public policy solutions with stakeholders' participation in particular for the pig commodity chain
- New institutional arrangements in particular for the organisation of the pig commodity chain

(c) Organisation's role and level of involvement

CIRAD was leader in this project and supported the local partners.

CIRAD was in charge of definition, implementation, training, monitoring of the project.

(d) Cost of the action

600 000 EUR

(e) Donors to the action

1. French Ministry of Foreign Affairs (MAE)

- Address (Direction générale de la Coopération internationale et du Développement):
- 244, Bd Saint-Germain, 75007 Paris
- Website: www.france.diplomatie.fr
- Telephone number: + 33 1 43 17 90 00
- Amount contributed: 300 000 EUR

2. CIRAD

- Amount contributed: 300 000 EUR

X- « Agrobiodiversity of sorghum in Mali and in Burkina Faso »

a) Object and location

The project aims to maintain and extend the biodiversity of sorghum and as such to increase the sorghum production in Mali and Burkina. The project covers, within each country, three zones of production of sorghum, diversified by their characteristics with regards to pluviometry, predominant cultures, biotic and abiotic constraints, use of sorghum and organisation of the commodity chain.

b) Results of the action

- Will be based on the current locally cultivated or conserved (collections) varieties, which possess characteristics of adaptation to major environmental constraints. It will *improve their production potential* by genetic means;
- Will *preserve the global genetic diversity by creating large genetic populations* which will undergo participative and decentralised selection processes, conducted by farmers-breeders who are mandated by the farmers associations within their villages. A hypothesis is made that maintaining a large global genetic diversity is the only efficient way to respond to the diversity of agro-ecological conditions, the use of sorghum and agriculture strategies;
- An *information system* with regards to the sorghum environment will be elaborated, integrating (assembling) data with regards to the variety, biophysical, technical, cultural and economic characteristics. The purpose of this information system is to analyse and understand how to decide on the use of a variety of sorghum and anticipate the evolution of biodiversity;
- The action will serve as a test for the *establishment of a partnership between research, farmer associations and development structures*. Each partner will also be represented within the decision making bodies of the project and will manage its activities.

c) Organisation' role (leader, partner) and level of involvement in the action

Project leader.

d) Cost of the action

3.5 million EUR

e) Donors to the action

1. Agence Française de Développement

- Address : 5, rue Roland Barthes 75598 PARIS Cedex 12
- Website: <http://www.afd.fr/contact/index.cfm>
- Telephone number : 01.53.44.31.31
- Email : com@afd.fr
- Amount contributed: 1.3 million EUR

2. French Ministry of Foreign Affairs (MAE)

- Address (Direction générale de la Coopération internationale et du Développement):
- 244, Bd Saint-Germain, 75007 Paris
- Website: www.france.diplomatie.fr
- Telephone number: + 33 1 43 17 90 00
- Amount contributed: 0.2 million EUR

3. Institut d'Economie Rurale (IER)

- Address : Rue Mohamed V, BP 258, Bamako, Mali
- Website: <http://www.ier.ml/index.html>
- Amount contributed : 0.2 million EUR

4. Institut de l'Environnement et des Recherches Agricoles (INERA)

- Address : 04 BP 7192, Ouagadougou 04, Burkina Faso
- Telephone: (226) 34 02 70 / 34 71 12
- Fax : (226) 34 02 71
- E-mail : inera.direction@fasonet.bf
- Amount contributed : 0.2 million EUR

5. ICRISAT

- Address : ICRISAT Bamako , BP 320, Bamako, Mali
- Website: www.icrisat.org
- Telephone number: +223 2223375
- Email : icrisat-w-mali@cgiar.org
- Amount contributed: 0.1 million EUR

6. *Institut Pierre Richier (IPR)*

- Address :BP 1500, Bouake 01, Côte d'Ivoire
- Amount contributed: 0.1 million EUR

7. *CIRAD*

- Amount contributed: 1.4 million EUR

XI- Biodiversity Informatics and co-Operation in Taxonomy for Interactive shared Knowledge base (BIOTIK)

a) Object and location

The present project is an initiative in the emerging area of biodiversity informatics and aims to develop a knowledge base on two major “hotspots” of biodiversity: the rain forests in the Western Ghats of India and the Northern Annamite rain forests of Lao PDR (Myers N. et al., 2000). The knowledge base, built on a tree species identification system (IDAO), will be instrumental in understanding and assessing the biodiversity of these highly significant areas, as it will provide and facilitate dissemination of scientific and traditional knowledge. The knowledge base will draw from existing reference herbariums, which will however need to be completed with extensive field trips. Developed as an open source web-based application, the knowledge base will be made available on-line, on CD-ROMs for personal computer platform as well as on Simputer, a PDA operating on Linux with local language support.

This project primarily addresses the needs of stakeholders that are involved in maintaining and preserving these diverse rain forests, including the large scientific community working in these geographical areas and also the government agencies. The partnership builds on the foundations of the pre-existing scientific collaboration between the various partners who have specialized in developing IT&C applications for taxonomy (IDAO) on one hand, and taxonomy itself on the other hand. The existing collaborative efforts are both at institutional level and through regional networks like European Tropical Forest Research Network (ETFRN). The project also brings together the partners’ demonstrated capabilities in implementing similar actions, viz. a) the development of IDAO, the core module of the identification system by CIRAD, b) the application of IDAO in the field of mangroves species, funded by the European Commission and implemented by the IFP and the CIRAD.

b) Results of the action

- Establishment of a long-term cooperation between European and South Asian institutions involved in taxonomy and IT&C initiatives;
- Enhancement of the biodiversity assessment capabilities in the region through building a knowledge base on the tree species of the Western Ghats of India and on the tree species of the Annamite Mountain range of Lao PDR;
- Preservation and dissemination of traditional knowledge in local languages and improvement of taxonomy knowledge-sharing through IT&C initiatives;
- Promotion of the development of Open Source based IT&C tools in biodiversity informatics for southern countries through a transfer of know-how between Europe and Asia;
- Promotion of the cooperation between two southern countries in the area of biodiversity informatics, namely Lao PDR and India;
- Building of two knowledge bases (an open-to-all web-based application and two CD-ROMs): one for the tree species of rain forests of Western Ghats (India) and another for the rain forests of the Northern Annamite Mountain range of Lao PDR. For this IDAO technology, an existing multimedia species identification software, will be used;
- Establishment of open data standards and protocols for the common use of species descriptions, terminology, composite drawings and common software architecture;
- Adherence to the standards defined by the Global Taxonomy Initiative (GTI) from the Secretariat of the Convention on Biological Diversity.
- Sharing of the knowledge base created with global databases like “Global Biodiversity Information Facility” and “Species 2000”, a Catalogue of Life Program .
- Translation of the identification tool in the respective local languages. This will help the capacity-building in taxonomy, the self-training initiatives and also contribute to the effort to preserve traditional knowledge in the southern countries.
- Transfer of the identification system to “Simputer”, a low-cost computing device based on Open source software which allows for regular updates of data through the web-based database.

c) Organisation’ role (leader, partner) and level of involvement in the action

Applicant

d) Cost of the action

791 100 EUR

e) Donors to the action

1) European Commission – EuropeAid Co-operation Office - ASIA IT&C

- Address:
EU-Asia IT&C II Programme Secretariat (Europe)
EuropeAid Co-operation Office
Unit D/2, Loi 41 - Office 3/101
B-1049 Brussels, Belgium
- E-mail : europaaid-asia-itc@cec.eu.int
- Telephone number: +32 2 298 48 73
- Amount contributed: 400 000 EUR

2) French Institute of Pondicherry (IFP)

- Address: 11, Saint Louis Street, PO Box 33, Pondicherry 605 001 India
- E-mail: ifpdir@ifpindia.org
- Telephone number: + 91 (413) 233 41 68
- Amount contributed: 84 400 EUR

3) National University of Lao PDR - Faculty of Science

- Address: Faculty of Science, National University of Lao PDR, P.O. Box 7322, Vientiane, Lao
- PDR
- E-mail: svengpc@laotel.com
- Telephone number: (856-21)770173
- Amount contributed: 21 900 EUR

4) Nationaal Herbarium Nederland, University of Leiden

- Address: Einsteinweg 2, 2333 CC Leiden, The Netherlands
- E-mail: Roos@nhn.leidenuniv.nl
- Telephone number: +31 71 527 35 24 / 35 76
- Amount contributed: 141 750 EUR

5) CIRAD

- Amount contributed: 143 050 EUR

XII- Open Source for Weed Assessment in Lowland Paddy Fields (OSWALD)

a) Object and location

The project aims to develop and sustain a long-term cooperation between Europe and least developed countries of South East Asia for bringing IT&C to rural sector. This is done by helping to address the issue of slow increasing agricultural productivity in Indochina by proposing a tool for decision-making in weeds identification and control. This decision-making tool will target extension workers and farmers of the lowland rice cropping systems at the village level and will effectively address the issue of local languages. It will address the important aspect of capacity building among students and agronomists in the two least developed countries, Cambodia and Lao PDR. A knowledge base for identification and control of the most important weeds of the lowland rainfed rice ecosystems of Indochina will be developed for this purpose. This knowledge base, built on a species identification system (IDAO), will draw from existing reference herbaria, which will however need to be completed with extensive field trips. Developed as an open source web-based application, the knowledge base will be made available on-line, on CD-ROM for personal computer platforms as well as on Simputer, a PDA operating on Linux with local language support. Perception of the application by the target audience in Lao PDR and Cambodia, the extension workers and the students will also be considered in order to improve the tool's usage and appropriateness at the grass root level.

The result would primarily address the needs of stakeholders that are involved in protecting the rice crops, including the large scientific community working in these geographical areas and also the extension services.

The partnership builds on the foundations of the pre-existing scientific collaboration between the various partners who have specialized in developing IT&C applications for species identification (IDAO) on one hand, and botanists / agronomists itself on the other hand. The project also brings together the partners' demonstrated capabilities in implementing similar actions, viz. a) the development of IDAO, the core module of the identification system by the CIRAD, b) the application of IDAO on the weeds of Reunion Island and on weeds of West Africa, c) the application of IDAO in the field of mangroves species, funded by the European Commission and co-published by the CIRAD.

b) Results of the action

- Initiation of a long-term cooperation between European and Indochina's institutions involved in IT&C applications in agriculture, through a project based on the transfer of IT&C to the extension services and the farmer level, followed by a sustained network for the transfer of know-how between an European tropical area (Reunion Island) and Indochina;
- Contribution to the enhancement of rice productivity in the lowland rice cultivation by enabling farmers' decision-making capacity in terms of crop management with specific focus on weed identification and control;
- Preservation and dissemination of traditional knowledge in local languages and improve botany knowledge-sharing through IT&C initiatives;
- Promotion of the development of Open Source based IT&C tools for southern countries through a transfer of know-how between Europe and Asia;
- Promotion of cooperation between two southern countries in the area of applied IT&C for agriculture, namely Cambodia and Lao PDR;
- Building of a knowledge base (an open-to-all web-based application and one CD-ROM) for the weed species of paddy fields of Cambodia and Lao PDR. For this, IDAO technology, an existing multimedia species identification software, will be used;
- Establishment of open data standards and protocols for the common use of species descriptions, terminology, composite drawings and common software architecture;
- Building of fresh capacities in both applied botany and agronomy at the institutional level in Cambodia on one hand and on the other hand in Lao PDR, the focus will be on capacity building in the application of IT&C to agronomy;
- Translation of the identification tool in the respective local languages (Khmer and Lao). This will help the capacity-building of agronomists in weed control, the self-training initiatives and also contribute to the effort to preserve traditional knowledge in the southern countries;
- Transfer of the identification system to "Simputer", a low-cost computing device based on Open Source software which allows for regular updates of data through the web-based database.

c) Organisation' role (leader, partner) and level of involvement in the action

Applicant

d) Cost of the action

451.500 EUR

e) Donors to the action

1) European Commission – EuropeAid Co-operation Office - ASIA INVEST

- Address:
European Commission
EuropeAid Co-operation Office
Asia-Invest Programme
Loi 41, 03/30
B-1049 Brussels, Belgium
- E-mail : europaaid-asia-invest@cec.eu.int
- Telephone number: +32-2-298 6737
- Amount contributed: 400.000 EUR

2) Royal University of Agriculture- Cambodia

- Address:
P.O. Box 2696, Chamkar Daung, Phnom Penh, Cambodia
- E-mail: rua@forum.org.kh
- Telephone number: +855 23 219 753 / +855 23 219 690
- Amount contributed: 0 EUR

3) National Agriculture and Forestry Research Institute (NAFRI), Lao

- Address: Dong Dok, PO Box 811, Ministry of Agriculture and Forestry, Vientiane, Lao PDR
- E-mail: bbouahom@laotel.com
- Telephone number: (856-21) 77 00 84
- Amount contributed: 0 EUR

4) Nationaal Herbarium Nederland, University of Leiden

- Address: Einsteinweg 2, 2333 CC Leiden, The Netherlands
- E-mail: Roos@nhn.leidenuniv.nl
- Telephone number: +31 71 527 35 24 / 35 76
- Amount contributed: 25.000 EUR

5) CIRAD

- Amount contributed: 26.500 EUR

XIII - Upgrading quality and competitiveness of fonio for improved livelihoods in West Africa (FONIO)

a) Object and location

This project aims to upgrade the quality and competitiveness of fonio in West Africa (Mali, Guinea, Burkina Faso, Senegal) by improving production, technology and marketing systems for local and export markets. Stakeholders and local decision makers will be provided with information on the potentialities of fonio. Suitable and sustainable solutions will be worked out to increase the supply of high quality processed products for local and niche export markets.

The general objectives of the FONIO project are to export and increase the incomes of the producers and the processors and to enhance the local competitiveness of fonio by increasing the productivity of the commodity chain at different levels (adapted varieties, appropriated production and farming systems, innovation in post-harvest mechanisation, ...).

b) Results of the action

- Development of high quality fonio products with appropriate processes for local markets in West Africa and for export;
- Determination of the nutritive value of fonio and fonio products and its contribution to nutrient intake and nutritional status;
- Assessment of the characteristics of the demand for innovative products from African and export markets and to understand the effect on income generation and distribution of the development of these products in comparison with the old ones;
- Assessment and understanding of the impact of the development of new products and processes on the organisation, strategies and economic results of the SMEs;
- Characterisation, in the producing zones, of the roles of the fonio in the farming systems, and its economic importance in food or feed systems;
- Improvement of the existing knowledge on fonio based cropping systems and ways for improving their productivity.

c) your organisation's role (lead manager or partner) and its degree of involvement in the action

Leader

d) the cost of the action in euros

1 297 360 €

e) donors to the action (name, account contributed)

1) European Commission – DG Research 6th RTD Framework

- Address : Rue de la loi 200 B – 1049 Bruxelles
- E-mail: inco-contract@cec.eu.int
- Telephone number: +32 2 299 11 11 (standard)
- Amount contributed: 900.000

2) Partners of the project: CIRAD, Wageningen University, Wallon Agricultural Research Centre, Institut d'Economie Rural (Mali), Institut de Recherche Agronomique de Guinée, Centre International de Recherche-Developpement sur l'Elevage en zone Subhumide, ENDA Sahel Afrique de l'Ouest,

This information will be used to assess whether you have sufficient experience of managing actions in the same sector of a comparable scale to the one for which you are requesting a grant.

XIV. The Agroecology Action Plan

[Cirad](#) has been conducting research within the framework of the second Green Revolution, i.e. creating and developing-in collaboration with farmers-new fertility-preserving and environment-friendly cropping systems with enhanced crop yields, and labour and soil productivity. These "agroecological" improvements have three main features: [no tillage, direct seeding and permanent plant cover](#). Such new agricultural systems are considered "innovative" since the functioning processes, physicobiochemical "climate" of the soil and the cropping systems are tempered by technologies not common to "conventional" agronomy.

The methodological aim of the Agroecological Action Plan is to bring together operational agroengineering, extension-oriented action research in collaboration with farmers, and "targeted" agronomy-focusing (at different scales) on the understanding of key processes in soil ecosystems and in the soil-plant systems that have been created.

Field "integrator" agronomists (sometimes called "generalists") have to be versatile agronomists to be able to fulfil a wide range of functions. It is not always easy to achieve the right balance between available resources, expertise, compatibility and level of sensitivity in different circumstances that can vary over time. The field is the best testing ground. Clearly, above and beyond a PhD, an agronomist's operational status is clearly weighted by the breadth of his/her field experience in comparing systems under various conditions.

The agroecological principles are to be put forward and adapted-in terms of conditions and interactions-to different agromorphoclimatic and agrarian situations. They should be able to meet the needs of small-scale (with or without inputs) or commercial intensively-cropped farms operated either manually, with animal-drawn or motorized equipment. Understanding system functioning mechanisms and extension strategies that are suitable for each situation will facilitate interpretation and help in developing a valid agroecology "theory", thus making it possible to apply specific results in a broader context, and vice-versa.

Taking in account this background, [Cirad](#) has been mandated by [French Ministry of foreign affairs MAE](#), French Funding Agency, [AFD](#) and the French Fund for Global Environment [FFEM](#), to develop an local-global Action Plan on Agroecology (2000-2006) aiming at facilitating the development and diffusion of these technologies in 5 key ecosystems throughout the tropical /méditerranéan world.

Up to now, five countries could be identified :

- Malagasy as a pilot platform to the benefit of the African Indian ocean zone
- Laos as exemplary model for sustainable agriculture and environnement planning to the benefit of south east Asia.
- Mali and Cameroon for assisting African farmers to adapt their cotton technology
- Tunisia for takling the desertification syndroma.

Total CIRAD AFD MAE insvestment funding for this agroecology transversal research is estimated to 1 millions/year for the 2000-2006 period.

4.2Resources

Maximum 3 pages. Please provide a detailed description of the various resources which your organisation has access to, and in particular, of the following:

- a) annual income over the last three years, mentioning where applicable for each year, the names of the main financial backers and the proportion of annual income each has contributed

	Financial Data	2002	2003	2004
CIRAD	Annual Income (EUR)	169 052 K €	179 311 K €	175 501 K €

Main Financial Backers						
	K €					
	2002	%	2003	%	2004	%
French Public Sectors						
Ministry of Research	106 400	87,43	107 549	86,72	110 409	88,61
Ministry of Foreign Affairs	4 403	3,62	4 268	3,44	3 853	3,09
Ministry of French Overseas Regions	6 264	5,15	6 644	5,36	6 943	5,57
Other French Public Resources	4 631	3,81	5 553	4,48	3 402	2,73
Sub-total French Public Funds	121 698	100	124 014	100	124 607	100
Other Sources	2002	%	2003	%	2004	%
Foreign Public Organisations	2 986	10,51	4 371	16,77	3 332	10,79
European Union	12 327	43,40	9 739	37,37	13 283	43,01
Other International Organisations	1 659	5,84	1 270	4,87	1 466	4,75
Private clients	11 430	40,24	10 680	40,98	12 802	41,45
Sub-Total Other Sources	28 402	100	26 060	100	30 883	100

- b) the number of full-time and part-time staff by category (e.g. number of project managers, accountants, etc), indicating their place of employment

Number of full-time and part-time staff by category			
		Full time in 2004	Part time in 2004
Head	Managers and Researchers	777	70
	Other staff : accountants, secretaries, technicians, etc.	383	144
Head Sub-total		1160	214
Staff working abroad	Managers and Researchers	216	2
	Other staff : accountants, secretaries, technicians, etc.	0	1
Staff working abroad		216	3
Total		1376	217

- c) equipment and offices

CIRAD premises:

- Head office : Paris, France
- Tropical Garden campus : Nogent sur Marne, France
- Montpellier research centre, France : Lavalette campus, Baillarguet campus (offices, laboratories, experimentation fields, greenhouses)
- Corsica research center campus: offices, laboratories, experimentation fields, greenhouses
- Overseas territories: laboratories and offices in Guadeloupe, French Guyana, Reunion Island, Martinique, Mayotte, New-Caledonia, French Polynesia.
- CIRAD is present in 50 countries and has representation offices in 25 countries, among which Costa Rica and Brazil)

CIRAD has large office space at all sites together with internet access and facility of using databases/information from inside and from all over the world. In addition, CIRAD has a publication and documentation service, including a bookshop, several libraries and a website with online databases

1. France and overseas Departements ant Territories

Ile-de-France

Jean-Jacques Baraër, CIRAD
Regional Director
42, rue Scheffer
75116 Paris
Tel : +33 1 53 70 20 00
Fax : +33 1 47 55 15 30
jean-jacques.baraer@cirad.fr

Languedoc-Roussillon

Maurice Izard, CIRAD Regional
Director
Avenue Agropolis
34398 Montpellier Cedex 5
Tel : +33 4 67 61 58 00
Fax : +33 4 67 61 59 86
maurice.izard@cirad.fr

Corsica

Dominique Agostini,
director
Station de recherche
agronomique Inra
20230 San Giuliano
Tel : +33 4 95 59 59 21
Fax : +33 4 95 59 59 37
agostini@corse.inra.fr

French Guyana

Philippe Godon, CIRAD
Regional Director
BP 701, avenue de France
97387 Kourou Cedex
Tél : +33 5 94 32 73 50
Fax : +33 5 94 32 73 51
philippe.godon@cirad.fr

Guadeloupe

Patrice Guillaume, CIRAD
Regional Director
Station de Neufchâteau,
Sainte-Marie, 97130
Capesterre-Belle-Eau
Tel : +33 5 90 86 17 90
Fax : +33 5 90 86 17 91
patrice.guillaume@cirad.fr

Martinique

Thierry Goguey-Muethon,
CIRAD Regional Director
BP 214
97285 Le Lamentin Cedex
2
Tel : +33 5 96 42 30 00
Fax : +33 5 96 42 31 00
thierry.goguey-uethon@cirad.fr

Réunion

*and Comoros, Mauritius,
Seychelles*

Gabriel de Taffin, CIRAD
Regional Director
Station de la Bretagne, BP
20
97408 Saint-Denis
Messageries Cedex 9
Tel : +33 2 62 52 80 00
Fax : +33 2 62 52 80 01
cirad.reunion@cirad.fr

2. Africa

Central Africa

Cameroon, Congo, Gabon, Nigeria, Central African Republic, Chad

Jean-Louis Reboul, CIRAD Regional Director BP 2572, Yaoundé Cameroon Tel : +237 2 21 25 41 Fax : +237 2 20 29 69 cirad-cm@iccnet.cm	Philippe Deleporte, CIRAD Correspondent BP 1264, Pointe-Noire Congo Tel : +242 94 31 84 Fax : +242 94 47 95 philippe.deleporte@cirad.fr
---	--

Continental West Africa

Benin, Burkina Faso, Ivory Coast, Ghana, Mali, Niger, Togo

Jacques Pagès, CIRAD Regional Director 01 BP 596, Ouagadougou 01 Burkina Faso Tel : +226 50 30 70 70 cellphone : +256 70 20 57 45 Fax : +226 50 30 76 17 draoc.cirad@fasonet.bf	Sylvie Lewicki-Dhainaut, CIRAD Correspondent 08 BP 1077, Cotonou Benin Tel : +229 38 35 71 ou 38 80 86 Fax : +229 30 09 68 sylvie.lewicki-dhainaut@cirad.fr	Didier Snoeck, CIRAD Correspondent SCCS Regional Project Ambassade de France au Ghana, Valise diplomatique, 128bis rue de l'Université 75351 Paris SP07 Tel : 233 21 51 31 42 didier.snoeck@cirad.fr
--	--	--

Coastal West Africa

Cape Verde, Gambia, Guinea,
Mauritania, Senegal

Alain Renou, CIRAD Correspondent BP 1813, Bamako Mali Tel : +223 221 10 15 ou 675 01 50 Fax : +223 221 87 17 alain.renou@cirad.fr	Georges Subreville, CIRAD Regional Director 37, avenue Jean XXIII, BP 6189 Dakar-Etoile Senegal Tel : +221 822 44 84 Fax : +221 821 18 79 dreg.cirad@sentoo.sn
--	--

East and Southern Africa

South Africa, Botswana, Eritrea, Ethiopia, Kenya,
Mozambique, Namibia, Uganda, Tanzania, Zimbabwe

Denis Depommier, CIRAD Regional Director C/o ICRAF, United Nations Avenue Gigiri, PO Box 30677, 00100 Nairobi Kenya Tel : +254 7 22 46 53 cellphone : 254 7 23 274 069	Sylvain Perret, CIRAD Correspondent University of Pretoria Department of Agricultural Economics Extension and Research and Development 002 Pretoria South Africa Tel : +27 12 420 50 21 cellphone : +27 82 960 71 89
---	---

Madagascar

Michel Partiot, Regional
Director
Ampandrianomby
BP 853, Antananarivo
Madagascar
Tel : +261 20 22 406 23
cellphone : +261 32 07 114 22
Fax : +261 20 22 408 21
dregion@cirad.mg

Fax : +254 7 22 40 01
CIRAD-AFORA@cgiar.org

Fax : +27 12 420 50 01
sylvain.perret@cirad.fr

3. America

Brazil

Philippe Petithuguenin,
CIRAD Regional Director
SHIS-QI 15, Conjunto 3,
casa 1,
71 635-230 Brasília DF
Brazil
Tel : +55 61 248 56 65
Fax : +55 61 248 26 19
philippe.petithuguenin@cirad.fr

Central America

Guy Faure, CIRAD
Correspondent
CCAC, Apartado 490,
2050 San Pedro de Montes
de Oca
San José
Costa Rica
Tel : +506 234 62 82
cellphone : +506 823 07 53
guy.faure@cirad.fr

United States

Jill Barr, Correspondent,
assigned to the World Bank
and the Inter-American
Development Bank
Development Research
Associates
8313 Woodhaven bld,
Bethesda,
20817 Maryland
United States
Tel, Fax : +1 301 365 68 55
jbarr@cirad.fr

4. Asia

China

Zheng Li, CIRAD
Correspondent
507, Tower A, Fuhua
Mansion
8, Chaoyangmen North
Avenue
100027 Beijing
China
Tel : +86 10 6554 1871
Fax : +86 10 6554 1872
zhengliinra@sohu.com

Continental Southeast Asia

Myanmar, Cambodia, Laos, Thailand, Vietnam

Regional Director
CIRAD Representative Office
19, Han Thuyen Street, 4th
floor
Hai Ba Trung District, Hanoi
Vietnam
Tel : +84 4 972 06 25
cellphone : +84 90 32 157
92
Fax : +84 4 972 06 24
ciradvn@hn.vnn.vn

Eric Gohet, correspondant
CIRAD Office
Golden Jubilee Building, 10th
floor
Kasetsart University
10900 Bangkok
Thailand
Tel : +662 942 86 83
Fax : +662 942 86 84
eric.gohet@cirad.fr

Southeast Asia island countries

*Brunei, Indonesia, Malaysia, Philippines, Singapore, East
Timor*

Jean-Guy Bertault, CIRAD
Regional Director
Plaza Bisnis Kemang, 3rd
floor
Jalan Kemang Raya 2
Jakarta Selatan 12730
Indonesia
Tel : +62 21 719 90 67 ou
+62 21 719 46 01
Fax : +62 21 717 93 304
jean-guy.bertault@cirad.fr

5. Oceania

Vanuatu

Olivier Roupsard,

PO Box 231, Espiritu Santo
Tel : +678 36 890 ou 36 320
Fax : +678 36 355
olivier.roupsard@cirad.fr

d) other relevant resources (e.g. volunteers, associated organisations, networks that might also contribute to implementation).

CIRAD is member of several of European and international scientific networks on sustainable development and agricultural research (CGIAR, Global Forum on Agricultural Research, CORAF), carbon issues (Carboeuroflux, Flunet, Observatoires de Recherche en Environnement) and forest research (ETFRN, IUFRO). It participates in the French Technical Group designing national priorities vis à vis the 6th RTD Framework Programme – Priority 6 “Global change and Ecosystems”. CIRAD is also member of the board of CIFOR, the International Council of IUFRO.

Finally, CIRAD welcomes numerous top class students/fellows from universities or schools from all over the world. A specialized staff is also in charge of the organisation of training sessions in Montpellier or in foreign countries.

This information will be used to assess whether you have sufficient resources to implement an action of the scale of the one for which you are requesting a grant.

5. Other applications made to European Institutions, the European Development Fund (EDF) and EU Member States

5.1 Grants, contracts and loans obtained over the last three years from European Institutions, the EDF and EU Member States

Action title and reference number	EC budget line, EDF or other source	Amount (EUR)	Date obtained
LPF – “Levelling the playing field: fair partnership for local development to improve the forest sustainability in Southeast Asia” B7-6200/2002/68-519/CAI	UE - ligne Forêts Tropicale	1 410 715	19/08/2003
FLOAGRI -Systèmes intégrés de gestion participative des ressources forestières et agricoles par les populations rurales en Amazonie ENV/2004/081-407	UE - ligne Forêts Tropicale	2 589 079	01/06/2005
FOREAIM - Bridging restoration and multi-functionality in degraded forest landscape of Eastern Africa and Indian Ocean Islands N° 510790	UE- INCO	1 639 997	01/06/2005
Etudes d'aménagement forestier dans le cadre du Projet de Développement Rural Participatif dans le Moyen Atlas Central de la Province de Khénifra N° 15/2003/SPEF/PK	EuropeAid	320 000	01/08/2005
Formation spécialisée des agents de l'état dans le cadre de la mise en place d'un Centre de Données Forestières en république Centrafricaine N° 006/2004/MPEFBCI	UE – fonds STABEX	88 360	29/12/2004
PARPAF bis N° 244/PMURR/BCECO/DT/ML/2004	Agence Française de Développement	681 397	01/01/2005
PREDAS – “Implementation of a technical assistance to the regional program of promotion of domestic and alternative energies in Sahel” 2003-01//SE/PMP-GRN/PREDAS	UE – 8 ^e FED	1 234 784	07/04/2003
GREEN FUEL CELL – “SOFC Fuel cell fuelled by biomass gasification gas” 503122 (SES6)	EU - FP6 Strep – “New advanced concepts in renewable energy technologies”	5 185 000	01/09/2004
ULCOS (Integrated Project on charcoal production for steel making processes) NMP-CT-2004-515960	EU 6 th RTD Framework Programme – Priority 6 “Global change and ecosystems”	40 000 000	01/09/2004
Etude sur l'introduction d'une écoconditionnalité dans les achats publics de bois en France C004 0000 25	Ministère français de l'Ecologie et du Développement Durable	58 234	10/05/2004
BEPITA - “Support to training and project	EU - COOPENER	530 000	29/12/2004

development capacities in the field of biomass in Burkina Faso and Cameroon"EIE/04/S07.38611	Programme -		
LIFT OFF – Multi agricultural fueled staged gasifier with dry gas cleaning ICB1-ct-2002-80013	EU – 5th PCRD –Program Energies-G2	1 522 000	20/01/2003
Valorisation Sciage Okoumé N° GAB/0402/01/WT	CDE	75 000	18/10/2004
"Appui à la formation forestière nationale auprès de l'ENEF(Gabon) et de l'ERAIFT(Congo)" Europeaid/117027/D/SV/GA	EU - FED	1 458 000	15/12/2004
FFEM RCA - Gestion des terroirs de chasse villageoise pour la production durable de viande de brousse" CCF 1126.01 A	AFD (Agence Française de Développement)	1 000 000	26/01/2005
Feeding China's Expanding Demand for Wood Pulp Contrat No. ASI/B7-301/2598/09-2003/63240	UE – Asia Pro Eco	466 585	12/05/2003
"Upgrading quality and competitiveness of fonio for improved livelihoods in West Africa" named "FONIO" N° inco CT 2005-015403	U.E. - INCO-DEV STEPS	Total Project Cost 1 238 100 € EC contribution : 900.000 €	2005

5.2 Grant applications submitted (or about to be submitted) to European Institutions, the EDF and EU Member States in the current year:

Action title and reference number	EC budget line, EDF or other source	Amount (EUR)
Post-Tsunami sustainable ecosystem management around Ranong Coastal Resources Research Station. Integrative training and capacity building researches	EuropeAid – Asia Pro Eco IIB – Post-Tsunami Programme (CIRAD partenaire)	200 000
CAFNET: a Coffee Agro-forestry Network for the promotion of market-oriented, sustainable coffee agro-forests of Central America, East Africa and India	EuropeAid – Programme on Environment in Developing Countries	2 000 000
FORCOMBAC : Foresterie communautaire dans le bassin du Congo : Améliorer l'approvisionnement en bois énergie de Kinshasa et Brazzaville grâce au développement de plantations forestières paysannes.	EuropeAid – Programme on Tropical Forests and other Forests in Developing Countries	3 000 000
Innovkar - "Innovative Tools and Techniques for Sustainable Use of the Shea Tree in Sudano-Sahelian zone"	Inco	2 245 195
Acaciagum - "Innovative management of Acacia senegal trees to improve resource	Inco	2 197 512

productivity and gum-arabic production in arid and semi-arid sub-Saharan Africa"		
Proffor - "Promoting fruit from forest in west Africa for food security and income generation"	Inco	2 009 009
Inventaire, état de la régénération naturelle et possibilité de domestication des espèces ligneuses utilisées dans l'artisanat d'art dans l'ouest et le sud-ouest du Burkina Faso	Ministère français des Affaires Etrangères	99 871
Assistance technique au CTTBA Casablanca	EuropeAid - Meda (CIRAD partenaire)	490 000
Variabilité spatiale de la capacité de charge des milieux, des prélèvements synergétiques et de la productivité, paramètres essentiels dans le calcul de la durabilité de la chasse : exemple des céphalophes en Afrique Centrale	Ministère français de l'Ecologie	135 964
Forêts de failles et forêts galeries au sud du Mali : deux voies pour la pérennité des refuges guinéens en zone soudanienne	Ministère français de l'Ecologie	99 508

III. PARTNER(S) OF THE APPLICANT PARTICIPATING IN THE ACTION

1. Description of the partner(s)

This section must be completed for each partner organisation within the meaning of section 2.1.2 of the Guidelines for Applicants. Any associates as defined in the same section need not be mentioned. You must make as many copies of this table as necessary to create entries for more partners.

	Partner 1	Partner 2
Full legal name (business name)	National Agriculture and Forestry Research Institute (NAFRI)	Wageningen University
Nationality	Lao PDR	Dutch
Legal status	Agriculture and Forestry Research Department of the Ministry of Agriculture and Forestry of Lao PDR	University
Official address	P.O. BOX 7170	Wageningen University Social Sciences Hollandseweg 1 NL-6706 KN Wageningen The Netherlands
Contact person	Mr. Soulivanthong KINGKHEO	Dr. Rico Lie
Telephone number	(856) 21.77.00.78	+31-317-484310
Fax number	(856) 27.77.00.47	+31-317-486094
E-mail address	soulivanthong.k@nafri.org.la soulivanthong@yahoo.com	Rico.Lie@wur.nl
Number of employees	240	3,000
Other relevant resources	Multi-partners collaboration with others international research centres (CIAT, IRRI, ICRAF) and donors (EU, AFD, FFEM, SIDA, DANIDA, ADB, FAO, AusAid...)	---
Experience of similar actions, in relation to role in the implementation of the proposed action	Implementation of the Lao National Agro-Ecology Program Experience on Soil Conservation Technologies and Validation with smallholders of direct seeding mulch based cropping systems Division of NAFRI specialized in Information, Technology and Communication	Wu/CIS cooperated in a similar way with CIRAD in the EU IT&C@Asia funded project "Open Source Simple Computer for Agriculture in Rural Areas" (OSCAR)
History of cooperation with the applicant	Specific Agreement for the Lao National Agro-Ecology Programme (2000, 2003, 2005) OSWALD (Asia IT&C)	Wu/CIS cooperated with CIRAD in the EU IT&C@Asia funded project "Open Source Simple Computer for Agriculture in Rural Areas"

		(OSCAR)
Role and involvement in preparing the proposed action	Technical aspect Institutional framework	Responsible for conceiving the relevant sections (according to its project tasks) of the project proposal
Role and involvement in implementing the proposed action	Preparation of a website and selection of fields areas Implementation of Soil Conservation Technologies with smallholders Training of farmers and extension services Building up the knowledge base Communication and Dissemination of the Activities and Results	-to learn about how technical agricultural knowledge bases (with conservation agriculture in Laos as a case), through the use of ICTs, could be used in (in)formal (extension and other agricultural) education -to reflect, guide and advise on the training modules for the farmers and extension services of Lao PDR -to be responsible for academic learning on communication strategies for capacity building activities

Important: This application form must be accompanied by a signed and dated partnership statement from the main applicant and from every partner, in accordance with the model provided on the next page.