

## Agricultural Development in Laos : a Social and Technical Integration

By Sombath Somphone

### Profile of Project

The Rice-based Integrated Farming System project, known as RIFS, is the first phase of an integrated rural development program, where agriculture plays a leading role. The project places importance on social and technical integration with an ultimate aim of establishing a sustainable system of food production and self reliance at family and village levels.

For flexibility, three baskets of technologies are being supported by RIFS. They include: 1) Bio-Intensive Gardening - BIG; 2) Rice And Fish Technology - RAFT; and 3) Sloping Agricultural Land Technique - SALT. (a BIG RAFT of SALT) Each of the basket contains ample options for farmers to choose from.

Criteria for selecting cooperants are in the following order:

- 1) Identified interested authorities/groups and individuals/families.
- 2) Proportional representation of major ethnic groups: Lowland Lao, Mid-land Lao, and Highland Lao.
- 3) Proportional representation of existing agro-ecosystems: irrigated lowland, rain-fed lowland, upland, and hinterland.
- 4) Accessibility

Introduction of the project begins with series of one-day briefings on technologies supported by RIFS, first to authorities and then to groups of prospective villagers. Through these briefings we obtain plans of cooperation, in form of a contract which always includes participatory on-farm demonstration trials.

The groups we work with include: the Ministry of Agriculture, the Ministry of Education, the Lao Women's Union, the National Reconstruction Front, and a number of foreign aid agencies. We play the role of a technical team assisting these groups on training and planning. If financial assistance is needed we can also provide limited assistance.

As an entry point we encourage cooperants to choose one of our technologies to be demonstrated and introduced into their village. We promote technologies which are relevant, simple, low-cost, and fairly assured of quick returns. If successfully implemented a relationship of trust will emerge between the project team and the villagers. The RIFS team then use this relationship as an entry point to expand and to introduce other RIFS activities.

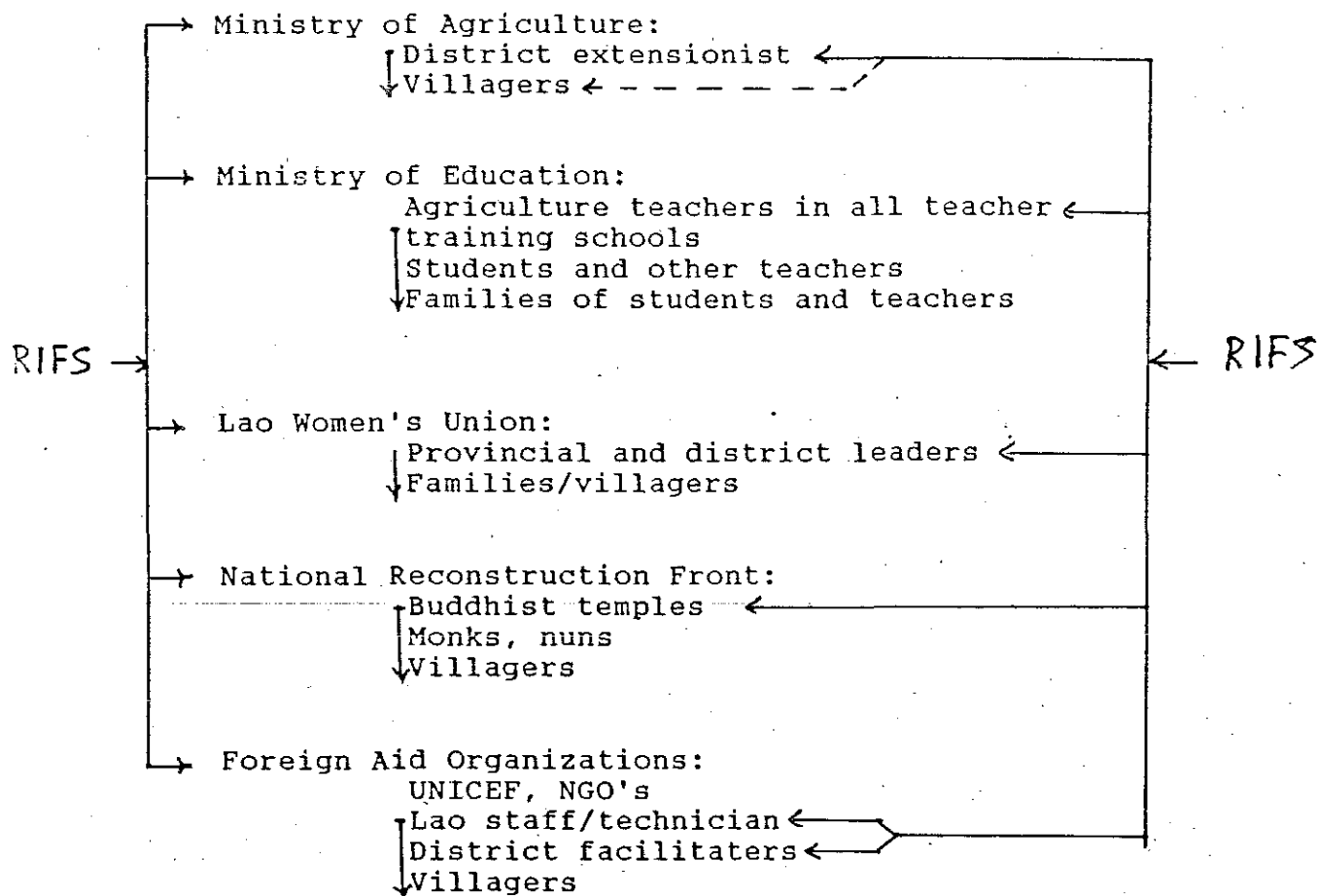
The introduction of RIFS is carried out by setting up annual or

seasonal training workshops at district level. A mobile team of trainers moves from district to district to carry out seasonal training workshops.

At the end of one season (or one year depending on the type of technology being introduced) of introduction to a given district, we encourage cooperants to expand the program to other members of their district and villages. We facilitate setting up farmers' groups. If appropriate we will set up a revolving fund for them.

The RIFS team is composed of 5 staff (including one woman): three are hired by the project; two are assigned to the project by the Ministry of Agriculture.

Government sectors participating in RIFS project

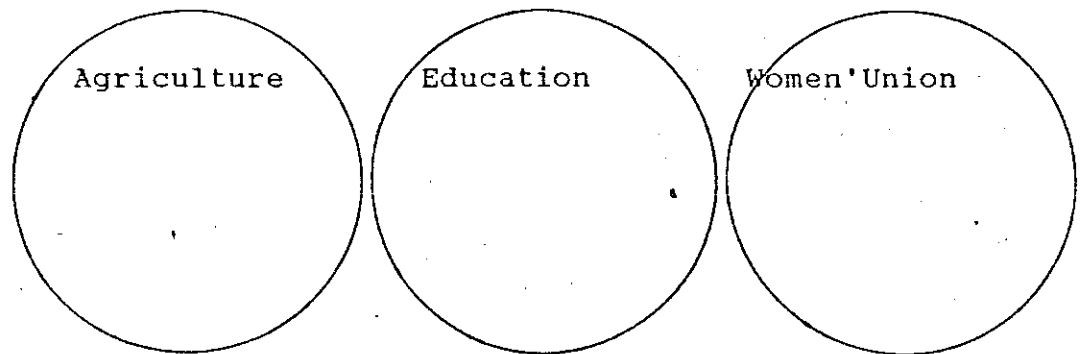


### Cross-sectorial integration

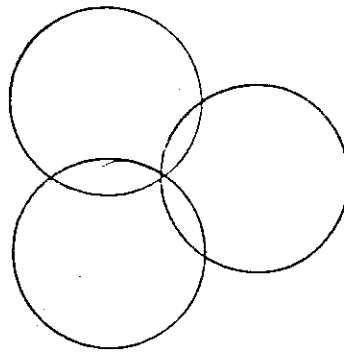
Our task is to be able to meet the need of villagers without upsetting government bureaucrats. The Government maintains a clear sectorial distinction at ministerial level. These ministries often do not coordinate their activities and tend to maintain fairly self-contained sectoral interests. Hence at the central level we tend to work with them all separately. On the other hand, at province level sectorial distinctions become less rigid, but still difficult to operate a cross-sectorial development program. At district level the sectoral distinction becomes blurred and is more conducive for the implementation of an integrated development program. At village level there is no visible sectorial separation. It is impractical to introduce our program at village level as there are too many. Thus the logical entry point is at the district level. Thus we set up a mobile team of trainers to conduct training workshops in selected districts. We see our RIFS team as a force applied on various government sectors to bring them together, starting from district level upward. See diagram.

Admin.  
levels

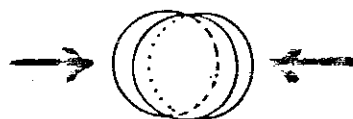
Ministerial



Provincial



District



Village



Table : Training

Admin. level	Trainer	Trainee	Teaching material	Length in days	No. of Sessions per yr
Nation/ region	RIFS team	Provincial officials/ technician	-RIFS handbook -Field trip -Slide/video	7-10	Once
District	RIFS team + Former RIFS national/ regional trainees	District officials and key villageers	-RIFS handbook -Field trip -Slide/video	3-5	Once or twice
Village	Former RIFS district trainees	Villagers from target villages	-Adult education handbook	0.5	Three to six

### Training

Training is done through a series of workshops. The strategy is to aim at two different target groups: one being teachers and teacher trainees; the other being district officials and key farmers. Training of teachers is done at national level. And training of officials and key farmers is done at district level. All training sessions stress on hand-on experiences. Handbooks are also made available, but still on a trial basis. ~~our RIFS~~ objective is produce two types of handbooks, one for teachers which is text-oriented, and another one for villagers which is more illustration-oriented and can be used as adult literacy material.

### National level

Building on previous work at teacher training junior colleges, the Ministry of Education and Sports agreed to cooperate and set up a training workshop on Integrated Farming System for teacher

teacher training school from all over the country. This is our first training session at national level. The trainees were 35 teachers from 35 schools from 16 different provinces and 4 women from the district Women's Union. They have gone back and are implementing the newly learned techniques in their schools and homes.

Since the first training workshop at national level last year more and more people are interested in the techniques of RIFS. They include people from the National Women's Union, villagers, and a number of funding agencies. Thus one session cannot accomodate all the interested parties. In addition, we learn that people from Northern and Northeastern provinces have quite different farming practices compared to those of who are from the West and live in the plain along the Mekong river. This leads us to divide our national training workshop into two regions for this year: one in an orphanage school in Luang Prabang (for the mountainous region), and another in a teacher training school in Champasack (for the Mekong plains). Participants will be the same ones who have participated in the first session. This is to encourage sharing of experiences after one year has lapsed since the first workshop. This will take place in November of this year.

At this point it is not conclusive yet on how effective this strategy is. We can say that such training has caught the attention of high level official on the importance of a healthy and ecological way of producing food as an option available to them. The effect at field level is that schools are now working harder toward this goal. In general one teacher is assigned to lead teacher trainees in setting up bio-intensive gardens. In the one year experience we observe that almost every school has started making vegetable gardens. These gardens are about less than half-way to be bio-intensive. Most schools still cannot produce vegetables all year round. We hope that this will change in the upcoming years. Some schools started using our handbooks to teach in their two-hour weekly agriculture schedual. Only one school established alley cropping. This is mainly due to poor preparation on our side. We started the project too late in the season. And only one school raises fish in paddy. This is mainly due to the fact that schools do not possess rice fields. However a number of teachers have introduced fish in their family rice fields. The result will be known in the next few months.

#### District level

In our target provinces we search for interested group in various districts. Once identified we then set up a 4-day workshop at the district involving officials, women, and key farmers. At the end of each subject we work out a detailed plan of operation with participants to ensure follow-up activities. We complete

each session with an arrangement to form a loosely organized group to facilitate monitoring and evaluation. In the future we would like to see these groups develop into an association and a network.

#### Content of the four-day workshop

##### Day One:

- System analysis: Productivity, Stability, Sustainability, Equitability
- Nutrition in relation to food production.
- Principle of Bio-Intensive gardening.
- Principle and practice of botanical pesticide.

##### Day Two:

- Designing a Bio-Intensive garden
- Group presentation of Bio-Intensive garden designs.
- Spraying pests with botanical pesticide.

##### Day Three:

- Principle of raising fish in paddy.
- Viewing video on raising fish in paddy and slides on alley cropping.
- Discussing different ways to modify a paddy to accomodate fish-raising - presentation with the use of a wooden scale model.
- Designing and planning his/her own work for fish raising.

##### Day Four:

- Plant propagation: cuttings.
- Plant propagation: grafting, budding.
- Preparation of vegetable beds: double digging.

Options: Depending on the interest and needs of the participants from a given district, we sometimes introduce a half-day session on animal raising such as local chicken or rabbit.

At the end of workshop we give out simple hand tools and some seeds to allow the trainees to practice what they had learned. Hand-tools include sprayer, scissors, plastic bags, rooting hormone. We gather local seeds from various parts of the country and some we buy from stores to distribute to trainees. The criteria for selecting seeds are their tolerance to diseases and that they are non-hybrids.

We plan to set up revolving funds for raising chicken, rabbit, and/or fish in paddy, when and where we find an interested group. These funds would stimulate formation of farmer groups.

Up to date we have conducted 5 workshops in five districts with a total of 198 participants. We plan to have at least the same number workshops conducted before the end of this year. As a result of these workshops we have introduced fish to be raised in about 50 hectares of rice fields at a stocking rate of 1000 mid-sized fingerlings per hectare, thus a total of 50,000 fingerlings. This is a rather large-scale introductory step.

Even though it is about one month away from harvest time, practically every farmer who have fish in his field are convinced of success. Many are already making plan to expand raising fish in a larger part of their fields next year.. At the same time many more farmers have submitted requests to take part in the program for next year. As a result we have already formed three groups of farmers. The group is new but they already indicated that they want include more components to their farming system, such as raising local chicken, propagation of quality fruit trees.

The women's group have already joined force and disseminated information on alternative pesticide and on plant propagation techniques. Some have set up village level meetings to demonstrate their newly learned techniques. They are aiming for villagers who earn a great portion of their income from producing vegetables all year round to supply the market of Vientiane. They are the people who regularly use hazardous chemical pesticides. It is important to note that many of the women who participated in our workshop are illiterate. They can follow the sessions with no difficulty. Our survey showed that women rank bio-intensive gardening higher in appropriateness than raising fish in paddy, while men rank the opposite. Thus we will strategize our follow-up activities accordingly.

#### Village level:

Village level meeting/demonstration is programmed for an expansion phase of the project. Those who have been trained at district level and have some experience implementing what they have learned are facilitator/farmer instructors at village level. Their job is to conduct meeting/demonstration in villages. The meeting should last between two to four hours each time.

Up to now we have conducted only one village level meeting but as an introduction of the program rather than as an expansion. The Women's Union has conducted a number expansion meeting/demonstration but it is too early to evaluate the



effectiveness of their work. The sustainability of the program will be determined by how effective it is at village level.

#### Cooperation with Buddhist nuns and monks:

Since Buddhist temples are centers of (cultural) activities in most villages, an attempt is made to make them centers for production of quality planting materials such as flowers, vegetables, fruit trees, and herbal plants.

We have cooperated with two Buddhist temples on plant propagation techniques. We conducted a demonstration on producing cuttings of vegetables and flowers in one temple and producing fruit tree seedlings in another. Since this was done quite recently we are not certain how effective it will be. Initial response from the nuns and monks is very positive. We hope that in the near future we will be able to use the monks and the nuns from these two temples to teach villagers these propagation techniques. They can get villagers to contribute labor and quality planting materials as seeds. Once multiplied they can sell these planting materials to generate a community fund.

We plan to set up a workshop at a national level in the February of 1991, to identify about 20 most commonly used herbal plants. Once identified we will encourage the planting of these herbal plants in the bio-intensive gardens.

#### Cooperation with other aid organizations.

We have joint programs with UNICEF and NGO's. UNICEF is our main partner in introducing bio-intensive gardening and raising of small animal in teacher training schools. UNICEF finance part of cost in setting up training workshop at national level, provides necessary material supplies to their target schools. RIFS team operates as coordinator and trainer, and monitors progress in the schools.

There are a number of foreign NGO's doing development work in Laos. Most of them have limited trained Lao staff members. Few organization brought in foreign technicians; the majority did not.

Since their work involves village development, often times there is a strong need for an agricultural component. We have been asked to conduct training workshops in their target villages or districts. We encourage their Lao staff to participate in our training workshops at district levels to familiarize themselves with our techniques and strategies so that in the future they can conduct their own workshop with minimum guidance from the RIFS team.

We cooperate with UNICEF in 19 schools; with the Mennonite Central Committee in 7 schools and 3 villages; with Quaker Service in 3 schools and 7 villages; with Church World Service in 2 schools; with Save the Children Fund Australia in 3 schools.

RIFS team members: Mr. Khammone Keomukda  
Ms. Thongkoun Luangkhot  
Mr. Bounsouk Vilay  
Mr. Sengprasert Mathuchan