WORKSHOP ON
Community Fisheries & Adaptive Learning
2nd - 3rd JULY 2002

RDC Building,
SAVANNAKHET

adaptivelearning
LAO PDR 1999-2002
DFID MRAG RDC

Vic Cowling, July 2002

This workshop has been sponsored by DfID (UK Department for International Development) as part of the FMSP (Fisheries Management Science Program)

Contents

Tables and Figures:

Executive Summary

The MRAG Ltd / RDC 'Adaptive learning approaches to fisheries enhancement' project started in February 1999 and finished in June 2002. It focused in on 'community fisheries' and concentrated on establishing a methodology that would enable Government staff and village communities to combine their strengths and learn more about management together. In total 38 villages in two Provinces, (Khammouane and Savannakhet) were involved in the project. During the course of the project technical experiments on stocking were carried out alongside socio-economic analysis of the costs and benefits of different management strategies. Most importantly, methods were established to make sure that all lessons learnt were available to, and evaluated by, both government staff and villagers alike.

The workshop had the aim firstly to present, discuss and evaluate what this project has learnt about community fisheries management and the adaptive learning approach and compare with the experiences of other organisations and secondly to identify ways in which the adaptive learning approach could be used in the future.

The format of the workshop was to have presentations by some of the key participants, designed to lead into discussion sessions. The working group sessions were intended to make the participants think - about their own experiences of similar project work in the past and to compare this with the results from the MRAG/RDC Community Fisheries and Adaptive Learning project.

A serious attempt was made to link the past to the future: It is the hope of the MRAG/RDC Community Fisheries and Adaptive Learning project staff, both Lao and English, that the successes of the project's approach, combining experimentation, management and learning at the same time, will be carried forward into new project activities.

Key results:

- Productivity: Tilapia do better than the carp mixture in high productivity water, but do less well than the carp in low productivity water.
- The results show that for good levels of survival of stocked fish, transport time for fingerlings should be less than 4½ hours.
- There was a clear improvement in catch when fingerlings are nursed prior to stocking.
- To analyse the benefits to the villages of the different community fisheries management systems is quite a complex task
- The adaptive learning approach is a cycle that provides for continuous improvement. Importantly, all the stakeholders must be involved at every stage of the process.According to the regular, ongoing project evaluation, every level of participant, villager, district officer, provincial officer and MRAG staff learnt as the project progressed
- Learning was enhanced by the use of this approach because it was locally relevant, because the involvement of all stakeholders throughout the process meant that the results were already owned by the participants, and so there is no need now to begin a process of extension to get the results out to the field
- The evidence is that capacity was built in this project, with both villagers and district officers reporting skills improvements post- versus pre- project.
- For this workshop there was greater than 77% satisfaction that the objectives were met in the opinion of the attendees.
- Similarly, the workshop was certainly relevant to participants work; definitely interesting and with a great majority of those attending wishing to know more about the subject.

1. Introduction to the report

1.1 Aim of the report

The MRAG Ltd / RDC 'Adaptive learning approaches to fisheries enhancement' project started in February 1999 and finished in June 2002.
'Community fisheries' is a term given to a particular rural development initiative in which small waterbodies are managed by the local community, collectively, to obtain benefits for the village as a whole.
Adaptive learning has been described as a structured process of 'learning by doing' that emphasises learning processes in management. Natural resource management often has to be undertaken without a complete understanding of the resources being managed (and therefore what the best management approach should be). In such cases the adaptive learning approach can be helpful by enabling management and improvements in understanding to occur simultaneously.
The aim of this report is to provide a record of the concluding workshop of this project.

1.1.1 Aims of the Workshop

1.To present, discuss and evaluate what this project has learnt about community fisheries management and the adaptive learning approach and compare with the experiences of other organisations.
2.To identify ways in which the adaptive learning approach could be used in the future.

1.1.2 Specific Learning Objectives

At the end of this workshop, participants will have:
1. Better knowledge and understanding of the benefits of community management of fisheries, based on the results from this Project and from their own experiences.
2. Increased their understanding of adaptive learning and its use in the field.
3. Identified together practical opportunities for the use of the adaptive learning approach, not necessarily in the community fisheries context.

1.2 Workshop style

•Participatory: The three years of the project were hugely participatory and it was essential to maintain this approach for the final workshop.
•Active: The intention was to actively involve the participants, not to have them acting only as an audience. Consequently the programme design included working group sessions directly leading on from three of the formal presentations.
•Thought provoking: The working group sessions were intended to make the participants think - about their own experiences of similar project work in the past and to compare this with the results from the MRAG/RDC Community Fisheries and Adaptive Learning project.
•Linking the past to the future: It is the hope of the MRAG/RDC Community Fisheries and Adaptive Learning project staff, both Lao and English, that the successes of the project's approach, combining experimentation, management and learning at the same time, will be carried forward into new project activities. It was therefore important to provide opportunities for the participants to consider where and how the approach could be used.

1.3 Language

The workshop was primarily in the Lao language. Translation from English to Lao was given for the presentations made in English by Dr Caroline Garaway, Robert Arthur and Wolf Hartmann, from Lao to English for the presentation by Khamchan Sidavong and from Lao to English for the question and answer sessions and the outputs from the discussion groups.
This report is the English version, and there is also one in Lao.

1.4 Participants

Table 1 below lists the participants and their organisations.

Table 1 Workshop participants

Dr Caroline Garaway	MRAG
Mr Robert Arthur	MRAG
Mr.Wolf Hartmann	MRC MRFII project
Mr.Khamcham Sidavong	RDC
Mr.Pansy Homegingkeo	RDC
Mr.Sinsamout Ounboundisane	RDC
Mr.Phetsoulaphone Choulatidar	RDC
Mr. Somphone Phosay	RDC co-ordinator, Salavan Province
Mr. Khamkot Vongsavanh	Head of livestock & fishery, Sekong Province
Mr.Fongsamout Sysaiyavong	Agriculture technician, CARE, Savannakhet
Mr.Phoui Siksidow	Natural resource planning, MRC MRF II
Mr.Siya	Head of livestock & fishery, Attapeu Province
Mr.Khamphoon Sengsambath	Head of Agriculture office, Savannakhet
Mrs.Malayphet	Technician, DLF, Champasak Province
Mr.Khamthon Vongphachan	Head of Livestock & Fishery, Khammouane Province
Mr.Bounma luang Amath	Dept of Livestock & Fishery, Vientiane
Mr.Lieng Khamsivilay	Deputy of LARReC, Vientiane
Mr.Akkaney Phomsouvanh	Technician of DLF, Vientiane
Mr.Phouvin Phousavanh	Technician from LARReC

2. Workshop programme

Tuesday 2nd July 2002

08.30 - 08.45 Official Welcome and Opening of the Workshop

08.45 - 09.15 Introduction & overview of workshop aims and objectives.

09.15 -10.00 Clarification of personal learning expectations.

10.00 - 10.20 BREAK

10.20 - 11.30 Session 1 - What the Project has learnt about community fisheries
Presentation by Khamchan Sidavong;
Groupwork and feedback

11.30 - 13.00 LUNCH

13.00 - 14.45 Session 2 - What is adaptive learning and how did we do it
Presentation by Robert Arthur;
Question and answer session

14.45 - 15.05 BREAK

15.05 - 16.50 Session 3 - Evaluation of the adaptive learning experience
Presentation by Dr Caroline Garaway;
Groupwork and feedback, based on Sessions 2 & 3

16.50 - 17.00 Round-up and review of day one.

17.00 CLOSE

Wednesday 3rd July 2002

08.30 - 8.40 Opening to the second day

08.40 - 10.00 Session 4 - The MRC Reservoir Fisheries experience
Presentation by Wolf Hartmann;
Question and answer session

10.00 - 10.20 BREAK

10.20 - 11.40 Session 5 - Identification of practical opportunities for the use of the adaptive learning approach
Groupwork and Plenary

11.40 - 12.00 Workshop Evaluation

12.00 CLOSE

3. Workshop content

3.1 Introduction & overview of workshop aims and objectives

Vic Cowling, the main workshop facilitator, gave a brief introduction to the workshop to explain its purpose. (Much as in sections 1.1 and 1.2 above). This presentation is at Annex 5.1.

3.2 Clarification of personal learning expectations

As a way of introducing the participants to each other, they were asked to think individually about:
- their previous experiences of community fisheries
- the reasons why they were attending this workshop
- what they hoped to learn by attending

They were then asked to introduce themselves to the group by explaining the answers to the 3 questions above. This was not a serious attempt at a training needs analysis, merely a way of getting them to tune into the workshop and of giving them something relevant to talk about. Not everyone had experience of community fisheries (actual figures were collected in the ...) but all expressed an interest in this subject. In particular, methods of management and the results of the experiments in changing management were of interest to many of the participants; a number were from provinces that had not yet promoted the community fisheries concept, but were hoping to do so in the future.

3.3 Session 1 - What the Project has learnt about community fisheries

This presentation by Khamchan Sidavong, Deputy Head of the Livestock and Fisheries Section of Savannakhet Province, outlined the technical content and results of the project. *(Khamchan also showed some slides of community fisheries sites, which are reproduced in Annex 5.2)*

When this project defined community fisheries, the following applied:
- Pond size from 1 to 14 ha
- Ponds must be close to village
- Ponds had models of community management (fishing groups, renting and fishing days)
- When stocking fish the rate was 3500 fingerlings per ha
- Ponds had fishing rules and regulations

The experiment had the objectives firstly to find out about productivity and income benefits from the different management models and secondly to research the productivity of different species mixtures when stocking. The experimental variables are tabulated below:

Table 2 Experimental design

Species stocked	Level of productivity of the water (based on natural food)	
	high	low
Tilapia	6 villages	6 villages
Mrigal, rohu and bighead carp	6 villages	6 villages
Mrigal, rohu, bighead carp and tilapia mixture	6 villages	6 villages

Results of the first year's experiment:

Failed to capture very many of the stocked fish and so were unable to tell which species mixtures were more productive. The reasons for the failure were 1) a high percentage death rate of fingerlings in transport, or shortly after stocking due to their weakened state 2) ponds flooding, leading to loss of fish & 3) predation.

Consequently the experimental design was improved for the second year;

- to overcome the transportation problem, sources of fingerlings as close as possible to the villages that would stock them were sought
- fingerlings were nursed in hapas before stocking as a protection against predation.
- The same species mixtures and the same number of villages were used as in the first year.

Some key results from the second year's experiment:
Productivity: Tilapia do better than the carp mixture in high productivity water, but do less well than the carp in low productivity water. Figures 1 and 2 help to illustrate this point.

Figure 1 Comparison of species stocked in low and high productivity water

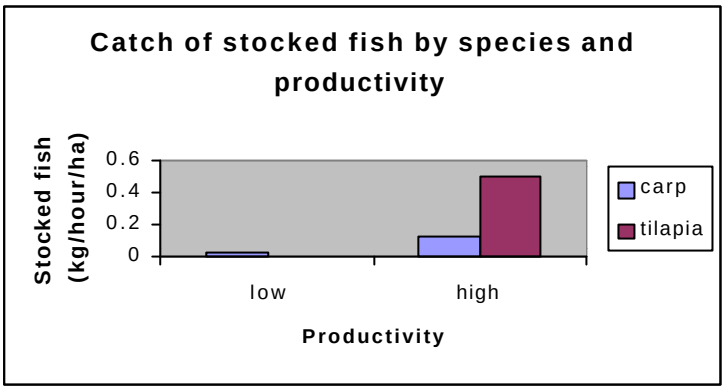
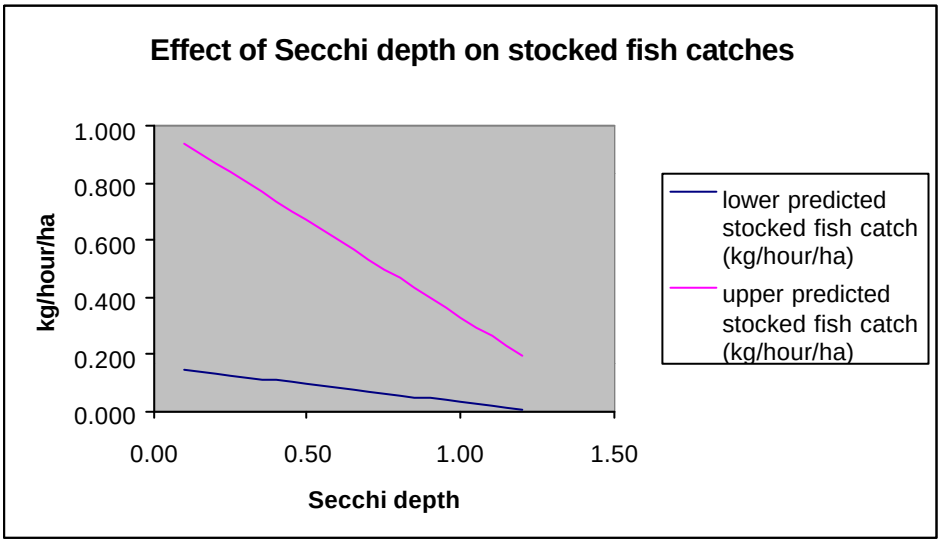


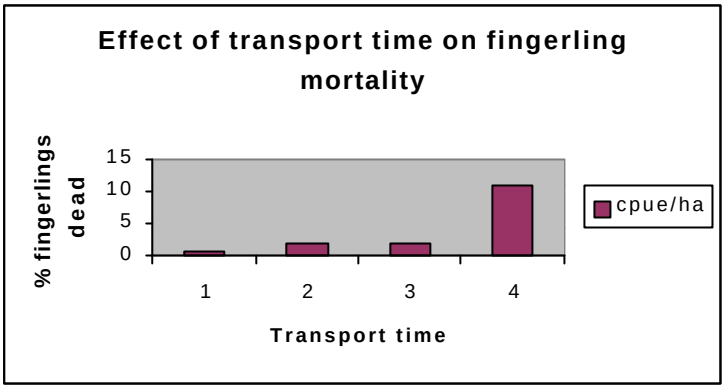
Figure 2 Effect of Secchi depth on stocked fish catches

(The Secchi depth is used as a simple measure of the level of naturally available food in the ponds.)



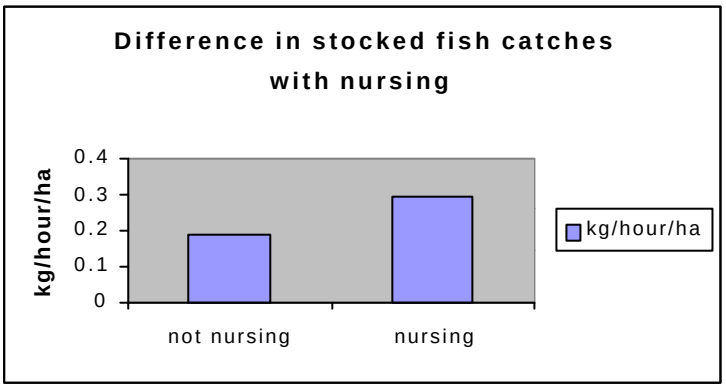
Effect of transport

Figure 3 Transport time and fingerling survival



In Figure 3, the fingerling transport time is coded thus
1 - less than 2 hours,
2 - 2-3 hours,
3 - 3-4½ hours
4 - more than 4½ hours
The results show that for good levels of survival, transport time should be less than 4½ hours.
Nursing: Figure 4 shows the clear improvement in catch when fingerlings are nursed prior to stocking.

Figure 4 The impact of nursing stocked fish on catch



Benefits from different management systems:

Figure 5 Comparison of benefits from different management systems

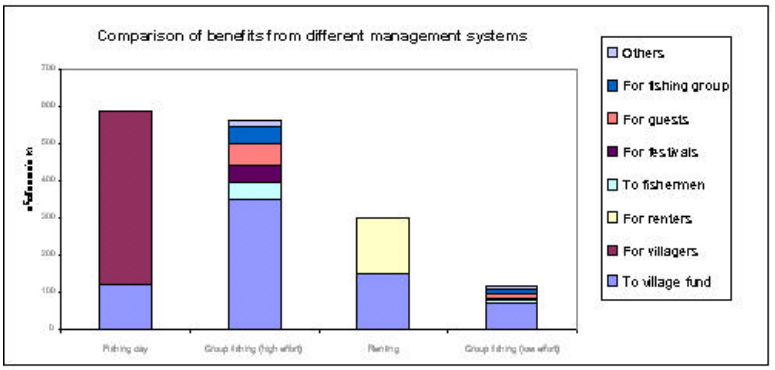


Figure 5 is quite complex and is reproduced in larger format as Annex 5.3. This diagram was worked on as part of the syndicate group activity following Khamchan's presentation, since it was felt by the project

staff that for a better understanding of the benefits of the different management systems time should be spent studying this graph.

After the presentation there was a question and answer session, then the group was split into 3 teams and each team had the same task -

a) Discuss and list your own community fisheries experiences
b) Use the graph of benefits from Khamchan's presentation (Figure 5 in this report) which showed different methods of management of community fisheries to identify and list the strengths of each method.

Annotated results from the group work discussions are included below:

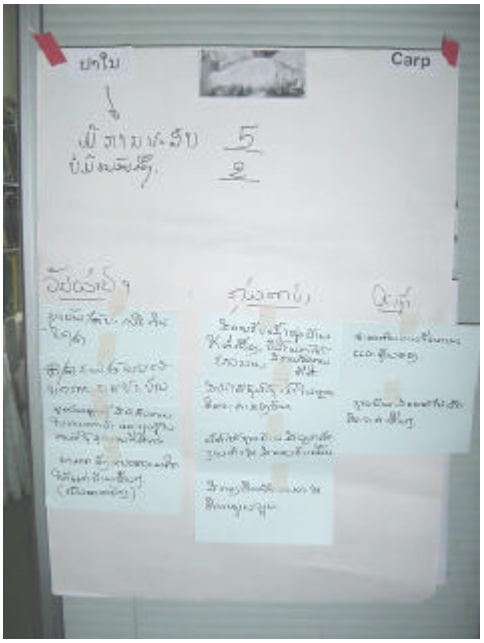
a) 11 of the participants had community fisheries experience, 6 did not
b) Combined results from the 3 groups are shown in table 3.

Table 3 Identified strengths of the different community fisheries management models

Fishing day	**Group fishing (high effort)**	**Rental**	**Group fishing (low effort)**
Villagers have fish to eat	Have total higher income in the village	Easy way to manage	Total income lower
Families and village get income	Can help with long term management & sustainable development	Villagers have plenty of time for other activities	Can be difficult to manage
Villagers gain experience of fishing and learnt about better gear	Have fish for guests and ceremonies	Income level is known in advance	Village gets some income
Can be a model for other villages	Opportunity for employment & increased income	Rental family has direct income	Villagers get some income
Total income of village lower	Can support development funds and revolving funds	But villagers may not have enough fish for consumption	Can supply fish for guests and ceremonies
Income for villagers higher	Group has high responsibility	And there are risks to both parties to the rental agreement*	
Easy to manage			
Can build village solidarity			

*The risks of rental were that the village could set the price low and then the renters catch more fish than expected, so the renters gain, but the village loses or the price may be set high and the renters catch fewer fish then expected, when the village wins and the renters lose.

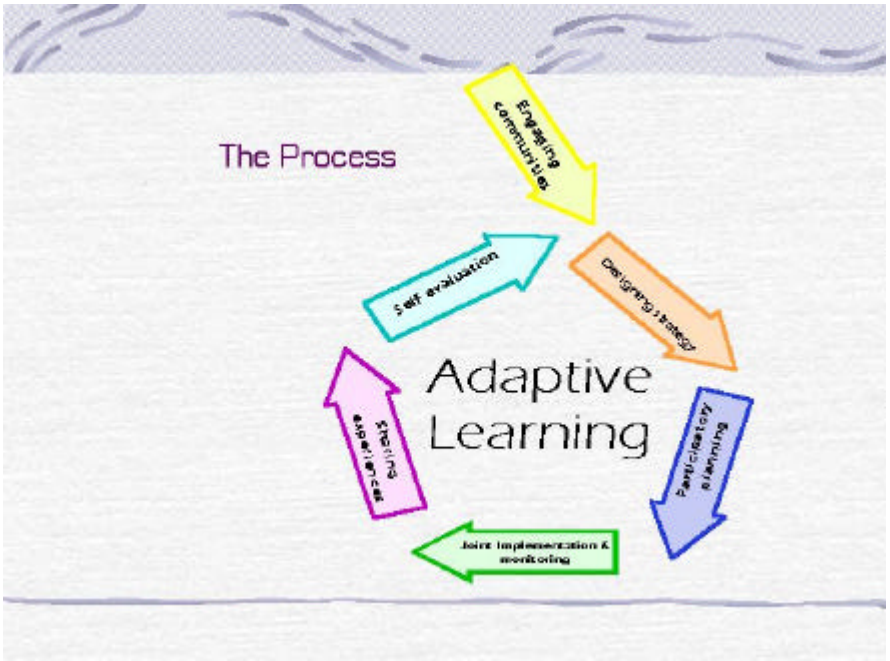
Figure 6 A sample output of one of the team discussions after Session 1.



3.4 Session 2 - What is adaptive learning and how did we do it

This presentation by Robert Arthur is contained in full in Annex 5.4. The main purpose of this presentation was to introduce or reinforce the concept behind the adaptive learning approach and explain how it was used in this particular project.
The idea was to carry out research, to experiment with new management methods at the same time as carrying out the management, that is to integrate research with practical activity, and to involve all the stakeholders at every stage of the process. Importantly the process is a cycle that provides for continuous improvement. (see Figure 7 below)

Figure 7 The adaptive learning cycle



3.5 Session 3 - Evaluation of the adaptive learning experience

This presentation by Dr Caroline Garaway is contained in full in Annex 5.5. It was her purpose to evaluate the whole approach, both from the technical community fisheries perspective, but also from the adaptive learning perspective.
Looking at the learning that took place:

- Some major technical things learnt were the importance of transport times for fingerling supplies, the importance of nursing in getting better survival and the range of results from the stocking mixtures.
- Who learnt? Every level of participant, villager, district officer, provincial officer and MRAG staff
- What was learnt about learning? The facilitation of workshops was evaluated at every occasion and the ratings improved year on year
- Was learning enhanced by the use of this approach? Yes, because it was locally relevant, because the involvement of all stakeholders throughout the process meant that the results were already owned by the participants, and so there is no need now to begin a process of extension to get the results out to the field
- Was capacity built? The evidence is that it was, with both villagers and district officers reporting skills improvements post- versus pre- project.

After Caroline's presentation, there was groupwork about both her and Robert's inputs:
The group split into 3 teams with different membership than in session 1, each group with two tasks, one common to all groups (No.4) and each group with an unique task -
1) What are the benefits of an adaptive learning approach, especially considering experimentation and community involvement
2) What are the limitations of an adaptive learning approach, especially considering experimentation and community involvement
3) Why is 'process' important and how do you measure it?
4) Give examples of similar adaptive learning approaches that you have already used
The results of the team discussions were as follows:
1) Benefits:

- The adaptive learning process can be easily connected to the Project Cycle
- To know the project objectives
- To know participatory methods
- To know about evaluation pre- and post- project

2) Limitations:

- Those involved may never have experimented before
- Can have a problem with trusting the experiment, or with the uncertainty
- Difficulties with decision making
- Real practice may not follow the plan

3a) Importance of 'process'

- Process is linked to the objectives
- Provides steps of practice in each activity
- Get results from each activity/stage of the process

3b) How to measure the process

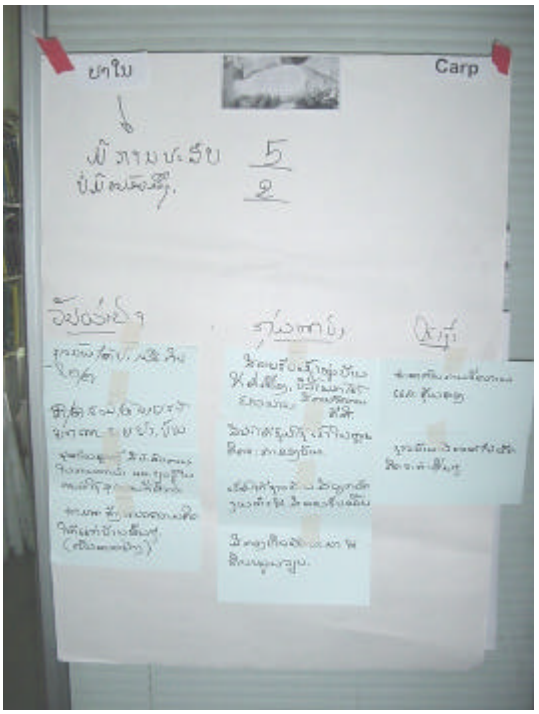
- Interviews
- Use consultations and share experiences
- Observing conditions before and after

4) Examples where they thought they had used similar approaches before:

- Community fisheries management
- Participatory extension methods
- Model of extension
- Group decision making

- Training of trainers
- Water supply management group
- Participatory planning
- Data collection from fieldwork
- Villagers involved in defining and solving problems

Figure 8 A sample output of one of the team discussions after Session 3.



3.6 Session 4 - The MRC Reservoir Fisheries experience

This presentation by Wolf Hartmann is contained in full in Annex 5.6. Wolf explained the background to the MRC Management of Reservoir Fisheries programme, operating in 4 countries, and with much larger waterbodies that was the case with the MRAG/RDC adaptive learning project. But there were some considerable similarities in the approach - for example, an emphasis on process, and the acceptance of uncertainty. He contended that all management is in essence experimental. The MRC MRF project has adopted the adaptive learning approach, and is using it at each stage, in project preparation, project implementation and in reservoir management.

3.7 Session 5 - Identification of opportunities for the use of the adaptive learning approach

Again 3 teams were created, this time two teams consisted of RDC related staff and the third from non-RDC people. All the teams were given the same 2 questions -
a) What areas of development management could you use the adaptive learning approach?
b) How can you promote the use of the adaptive learning approach?
The results of the team working were as follows:
a) community forestry, livestock extension, management of village revolving funds, project implementation, monitoring and evaluation, project reviews, planning and adaptation, cattle bank, vaccination, data collection about livestock diseases, village veterinary service.

b) encourage the community, give opinions to the community, arrange practice fieldwork for target groups, training, use natural conditions

Figure 9 A sample output of one of the team discussions after Session 5.

This example shows that the concept of the adaptive learning approach as a cycle was grasped by this group when talking about the establishment of a cattle bank. The flow down the left of the diagram is: study the potential area, organise the target group, develop rules and regulations, buy the animals and distribute, return the animals to the bank, modify the system for new members and go round again.

4. Workshop evaluation

A simple form, in Lao language, was issued for the participants to evaluate the workshop. The results, in English, are tabulated below:

Table 4 Evaluation: How well were the workshop objectives met?

Objective	Poor	OK	Good	Very good
1. Better knowledge and understanding of the benefits of community management of fisheries, based on the results from this Project and from their own experiences.	0	2	8	3
2. Increased their understanding of adaptive learning and its use in the field.	0	3	4	6
3. Identified together practical opportunities for the use of the adaptive learning approach, not necessarily in the community fisheries context.	0	3	10	0

Commentary: (One person did not answer these questions.) The percentage of participants thinking objective 1 was met well (good or very good) was 84%, and for objectives 2 and 3 it was 77%. Overall, a positive evaluation that the objectives were met in the opinion of the attendees.

Table 5 Evaluation: How did you feel about the content?

	1	2	3	4	
Difficult	6	3	1	4	Easy
Too much information	2	3	4	5	Not enough information
Relevant to your work	8	4	1	0	Not relevant
Interesting	10	3	1	0	Not interesting
I would like to know more in the future	11	2	1	0	I do not want to know more

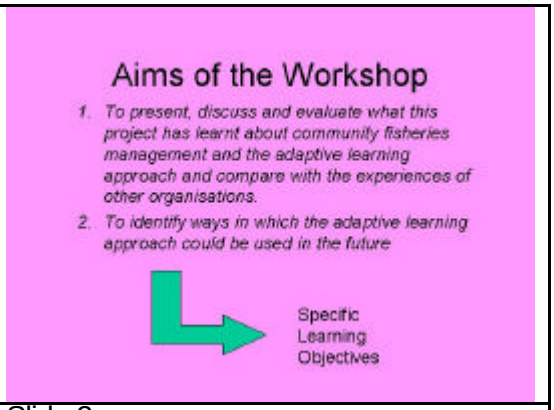
Commentary: (Not all questions were answered by everyone.) A good balance between difficult and easy; a definite tendency towards not enough information; certainly relevant to participants work; definitely interesting and with a great majority wishing to know more. Overall, a good evaluation.

To help the RDC send the participants the community fisheries and adaptive learning guidelines and other information, such as this report, contact details were also collected on the evaluation forms.

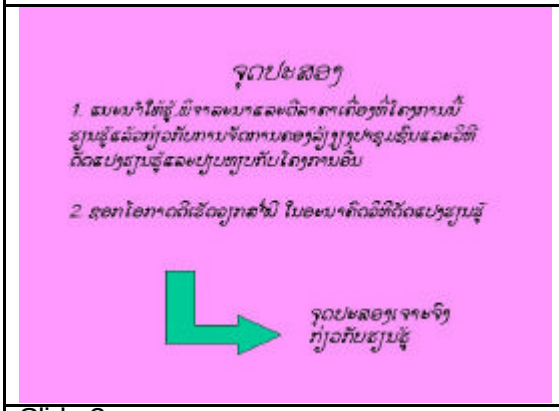
5. Annexes

5.1 Workshop introduction (presentation by Dr Vic Cowling)

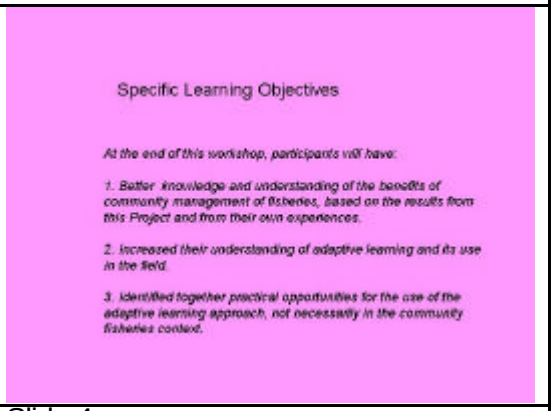
Slide 1



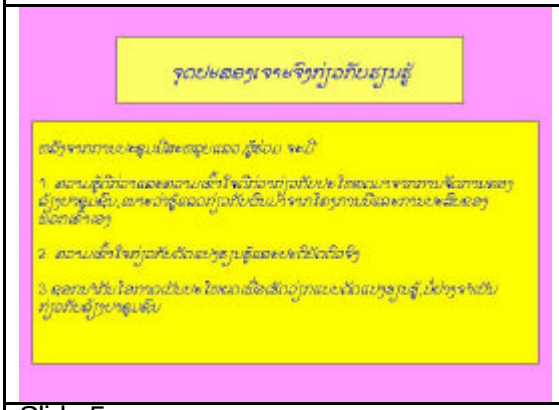
Slide 2



Slide 3

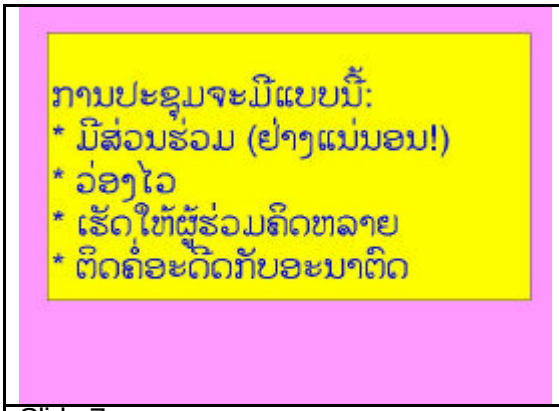


Slide 4



Slide 5

Slide 6

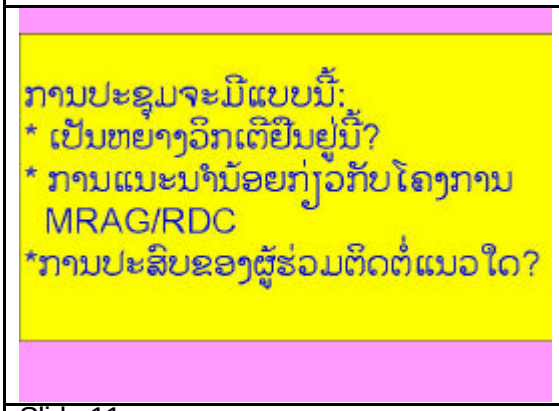


Slide 7

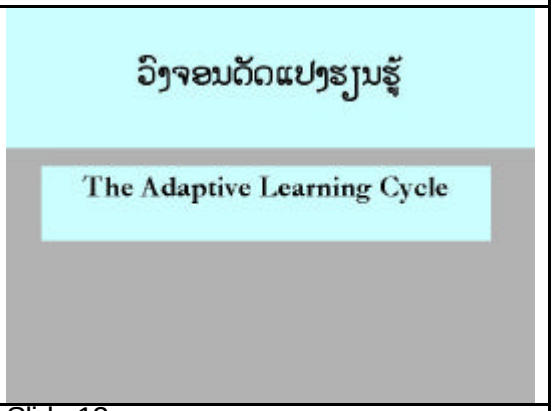
Slide 8

Slide 9

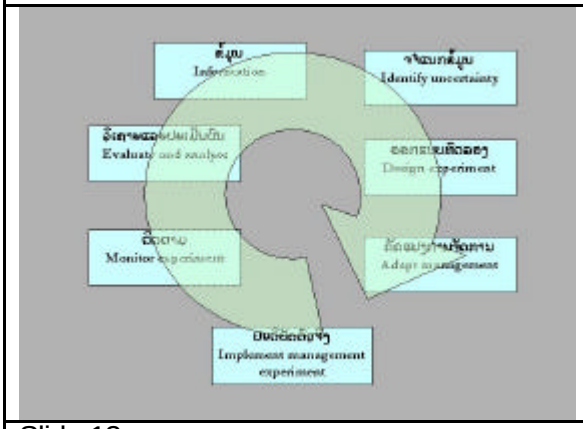
Slide10



Slide 11



Slide 12



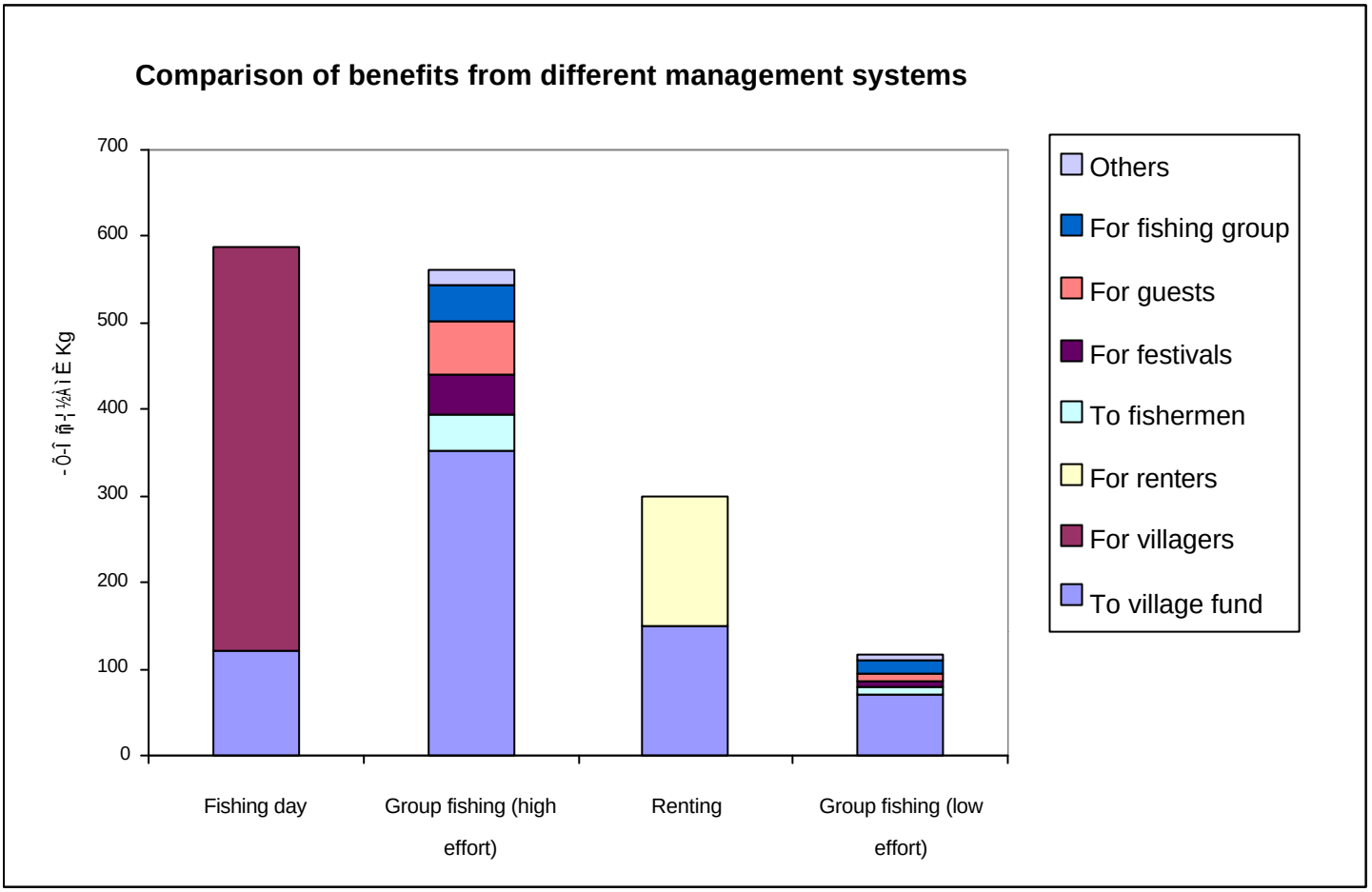
Slide 13

5.2 What do community fisheries look like? (presentation by Khamchan Sidavong)

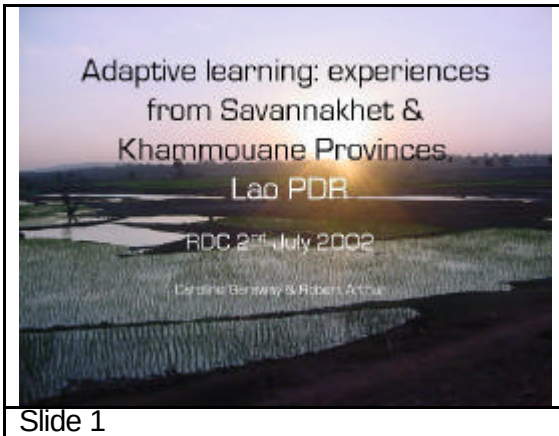
<table>
<tr><td>Community fisheries

What do they look like?</td><td>  </td></tr>
<tr><td>Slide 1</td><td>Slide 2</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Slide 3</td><td>Slide 4</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Slide 5</td><td>Slide 6</td></tr>
<tr><td>  </td><td></td></tr>
<tr><td>Slide 7</td><td></td></tr>
</table>

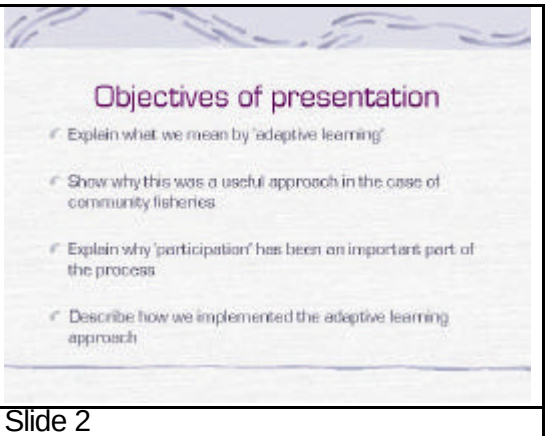
5.3 Comparison of benefits graph



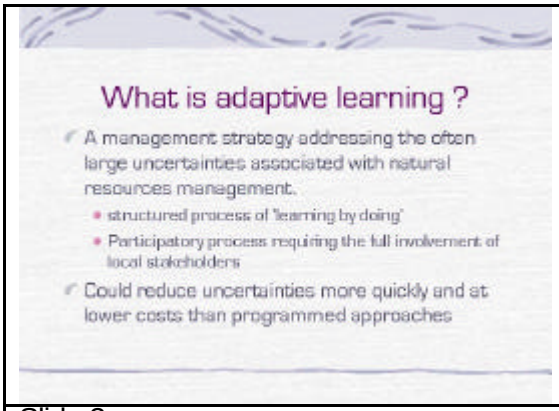
5.4 What is adaptive learning and how did we do it (presentation by Robert Arthur)



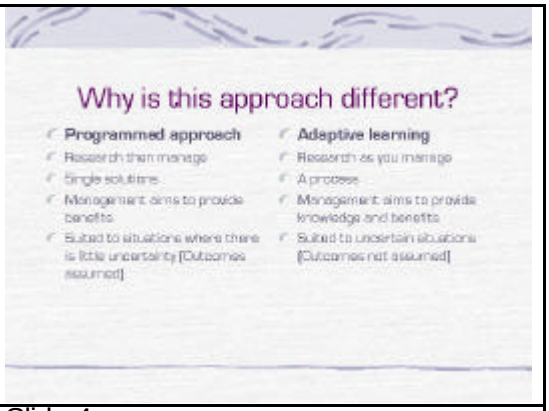
Slide 1



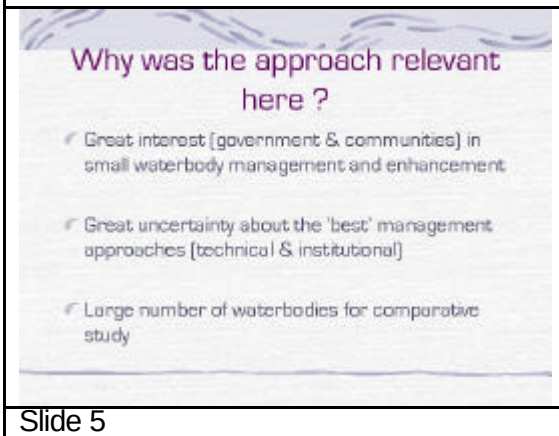
Slide 2



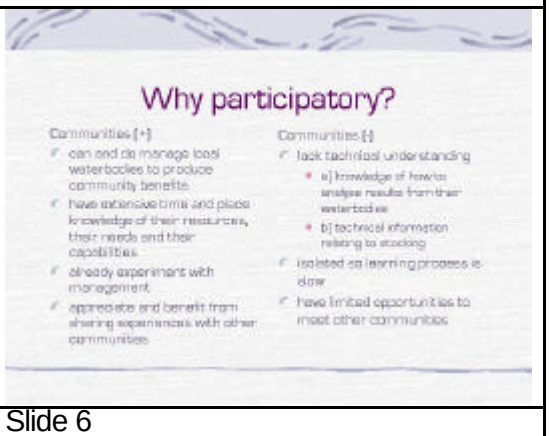
Slide 3



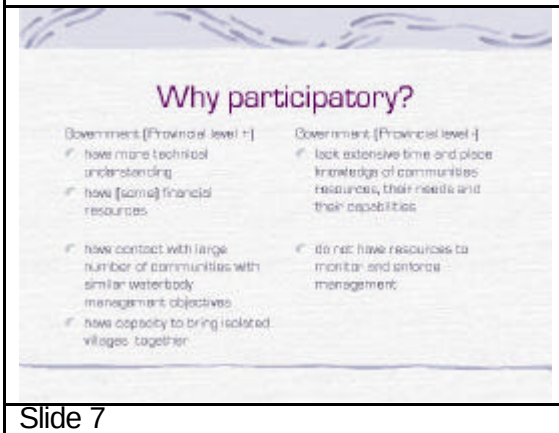
Slide 4



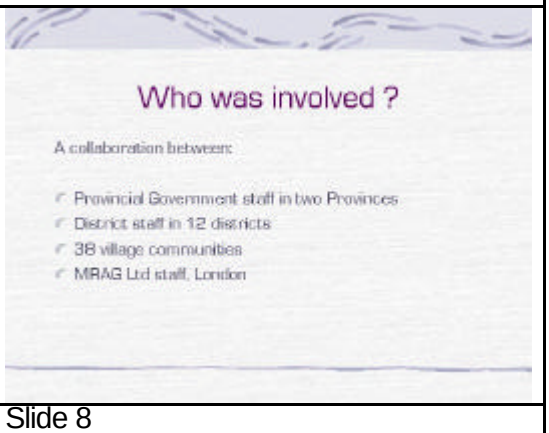
Slide 5



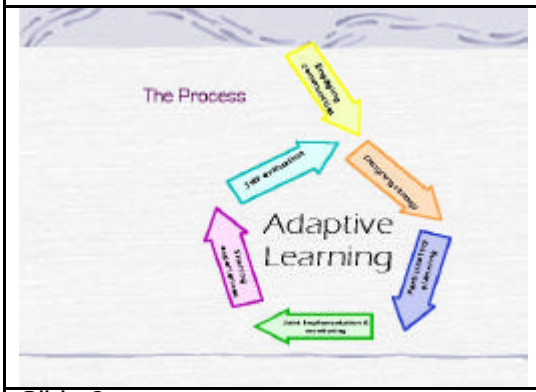
Slide 6



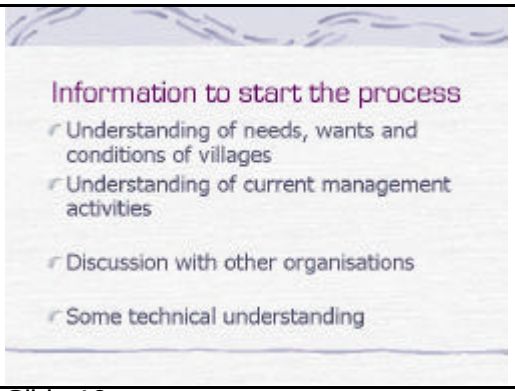
Slide 7



Slide 8



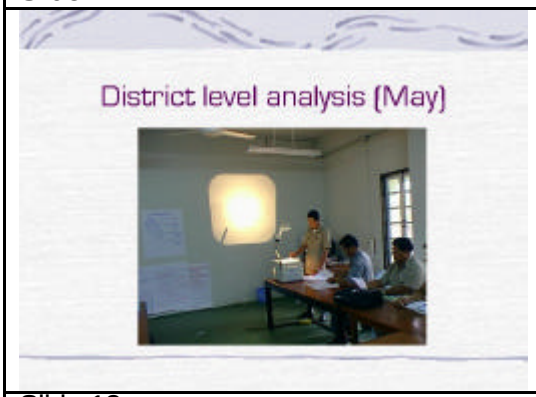
Slide 9



Slide 10

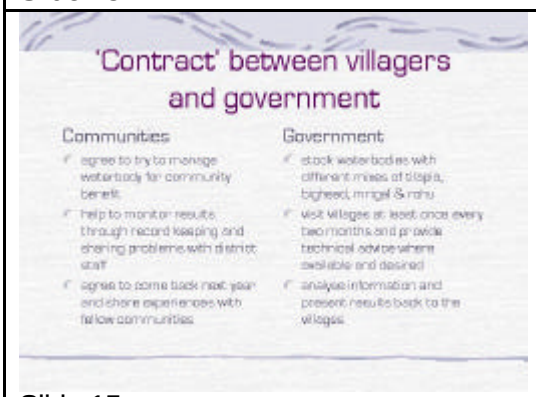
Slide 11

Slide 12



Slide 13

Slide 14



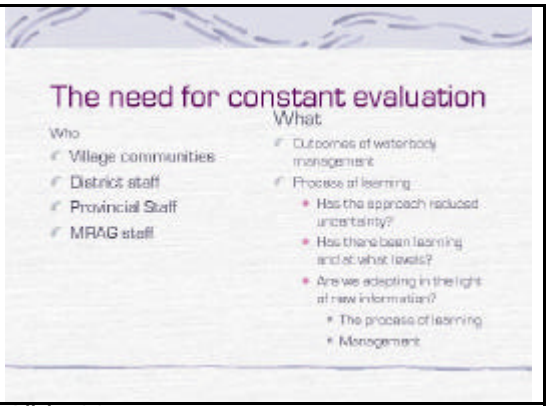
Slide 15

Slide 16

Slide 17

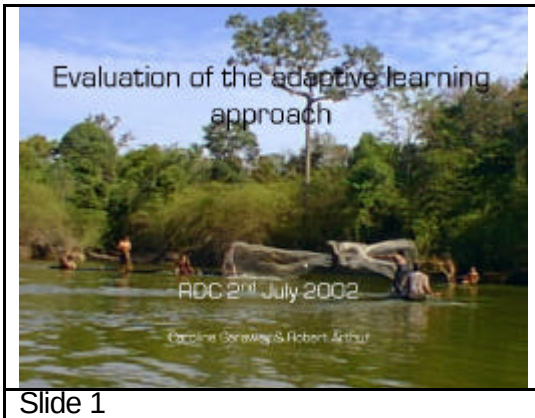
Slide 18

Slide 19

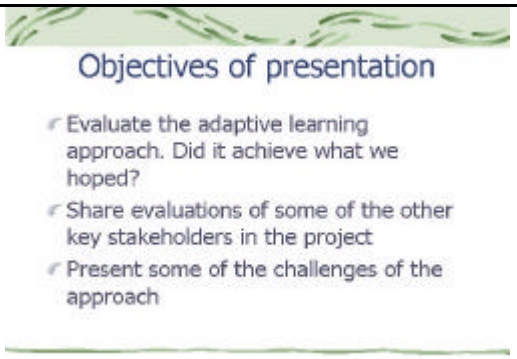


Slide 20

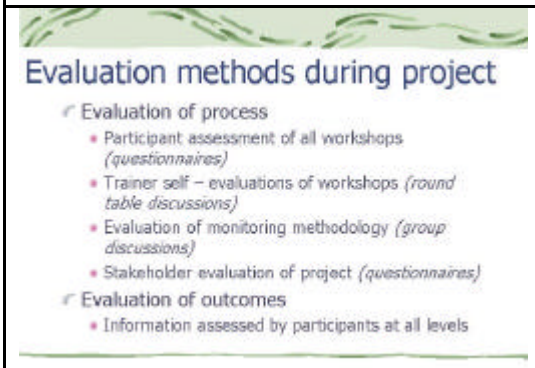
5.5 Evaluation of the adaptive learning experience (presentation by Dr Caroline Garaway)



Slide 1

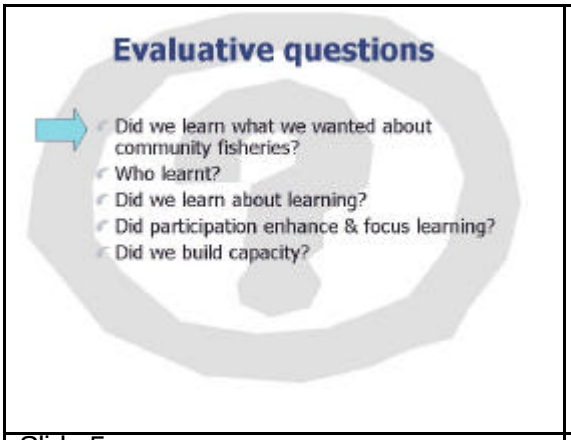


Slide 2



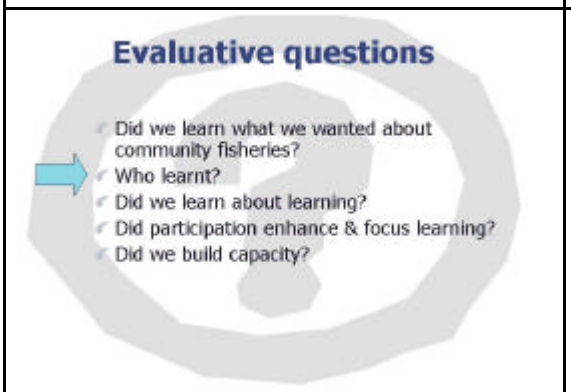
Slide 3

Slide 4

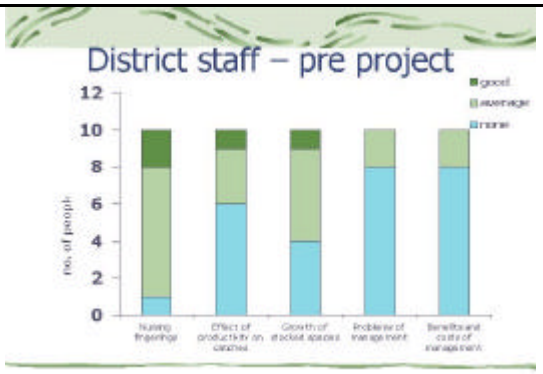


Slide 5

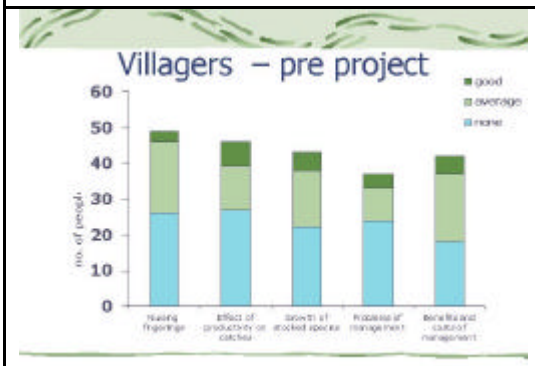
Slide 6



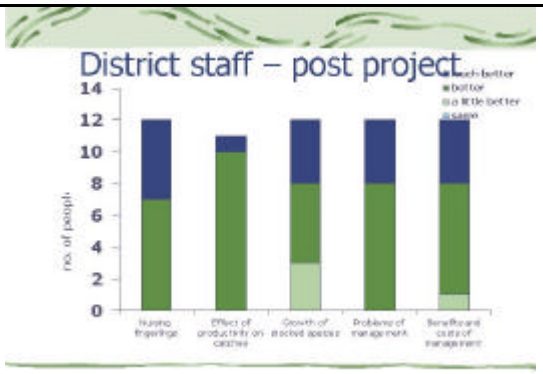
Slide 7



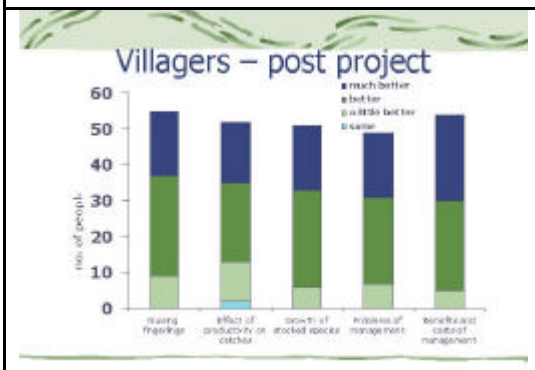
Slide 8



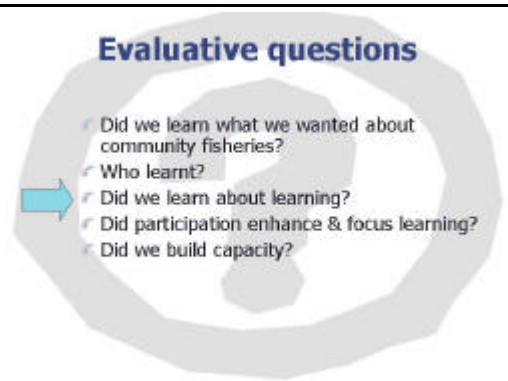
Slide 9



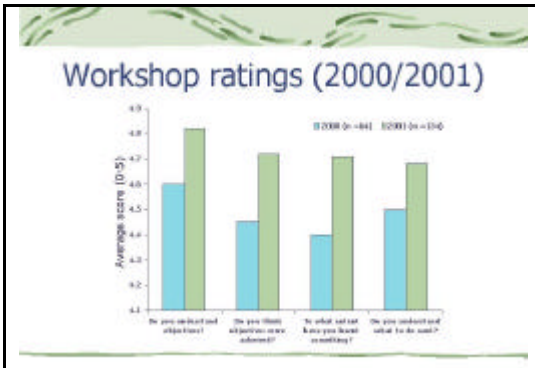
Slide 10



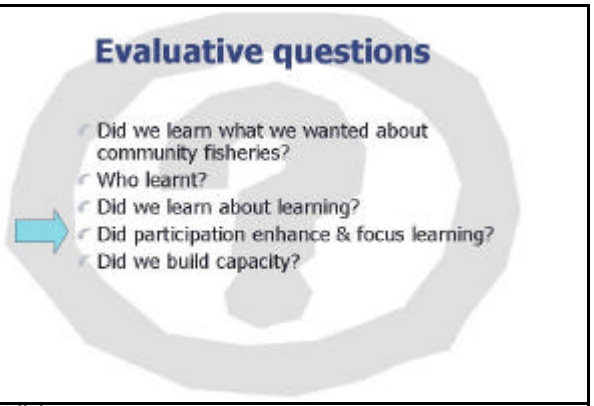
Slide 11



Slide 12

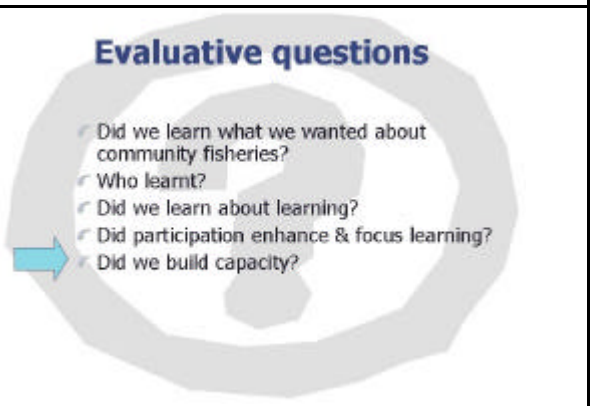


Slide 13

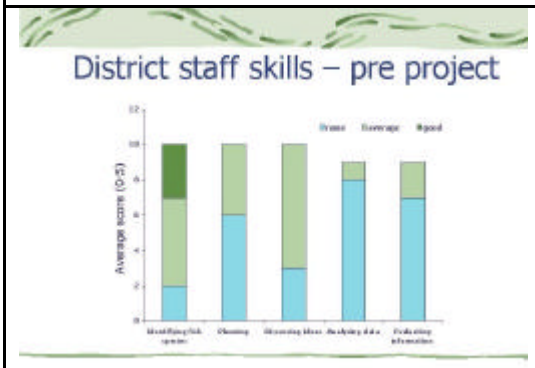


Slide 14

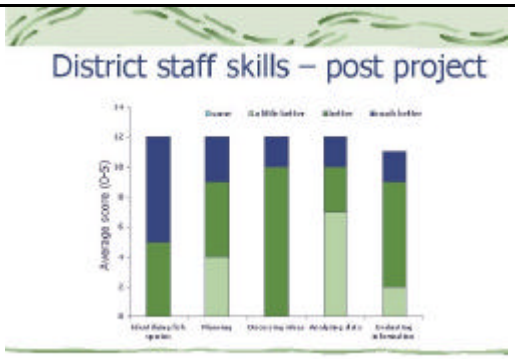
Slide 15



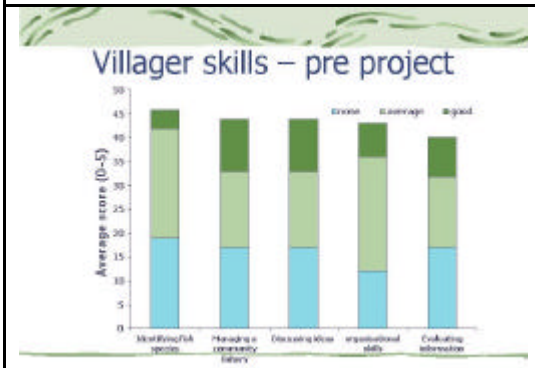
Slide 16



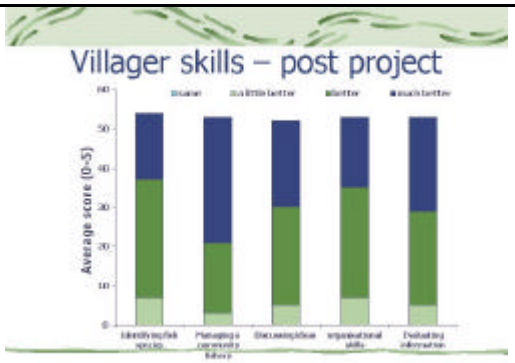
Slide 17



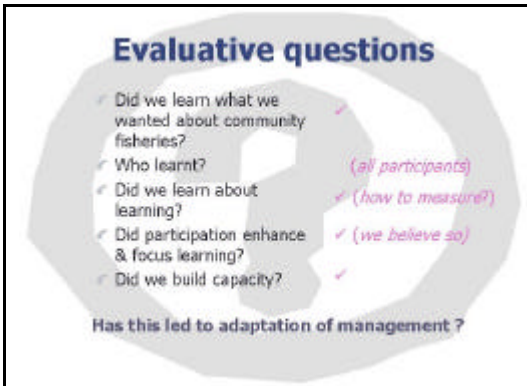
Slide 18



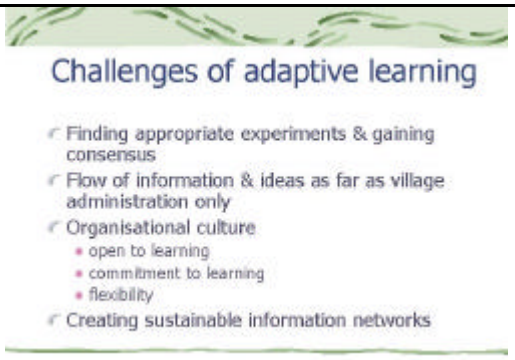
Slide 19



Slide 20



Slide 21



Slide 22

5.6 The MRC Reservoir Fisheries experience (presentation by Wolf Hartmann)

Community Fisheries and Adaptive Learning Workshop

MRAG/RDC

Savannkhet, Lao PDR, 2-3 July 2002

Adaptive learning and reservoir fisheries management in the Mekong Basin: Experiences from MRF II

Purpose of Session

- To inform participants what another organization is doing with the adaptive learning approach
- To learn from the experiences made by RDC and MRAG
- To contribute to the larger discussion on adaptive learning and management

Experiences made by RDC/MRAG and MRF in AL

- Many similarities

BUT

- Differences in scale, stages and emphasis

Preview of the Presentation

- What is management? What is adaptive (learning in/for) management?
- The Project
- Adaptive learning in reservoir fisheries development
- Points for discussion

Preview of the Presentation

- What is management? What is adaptive (learning in/for) management?
- The Project
- Adaptive learning in reservoir fisheries development
- Points for discussion

"to manage" or "management" is:

- To utilise, guarantee and protect, increase production from and improve a resource (v. Riekenburg)
- Any planned interaction that is needed/aimed to maintain the productivity of the resource (J.J. ex MRCS/FIP)
- Conservation and sustainable utilisation (anon.)

•1

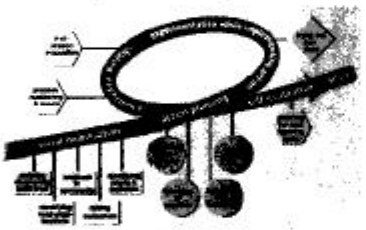
Many people ask (No. 1): „How can we manage if we haven't learned about the resource?"

- Research (or learning about) is part of management, it is an important management function
- To be effective, research has to be jointly decided and carried out (= participatory research/ → co-management)

Adaptive Learning and Management

- We recognize that resource management is always experimental
- We can learn from implemented activities
- We can improve resource management on the basis of what we have learned

Adaptive Management



Adaptive Learning (and Management)

A 1000 times heard is not as good as 1 time seen!

A 1000 times seen is not as good as 1 time touched!

A 1000 times touched is not as good as 1 time done!

Learning by doing!

Vo The Dung

Adaptive learning (and management)

- By (all) stakeholders
- In decision-making
- In all stages of the project

Adaptive learning (and management)

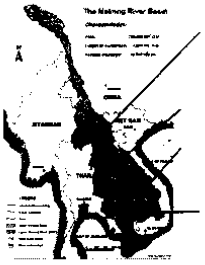
- In project preparation („before")
- In project implementation („during")
- In reservoir management („after")

•2

Preview of the Presentation

- What is management? What is adaptive (learning in/for) management?
- The Project
- Adaptive learning in reservoir fisheries development
- Points for discussion

Main Areas of Operations



- Lao PDR: 5 reservoirs in Vientiane Province and Prefecture and Bolikamsay Province;
- Thailand: 4 reservoirs in 4 NE provinces
- Viet Nam: 5 reservoirs and 1 lake in Dak Lak province
- Cambodia: 4 reservoirs and 1 ex-fishing lot in 2 provinces

Coverage

- Waterbody area: ca. 70,000 ha
  (LMB reservoirs: ca. 1,000,000 ha)
- Villages: ca. 170 villages
- Target population: ca. 130,000 people
- Fisher population: ca. 15%

Reservoir sizes

- Cambodia: 200 – 12,000 ha
- Lao PDR: 200 – 1,500 ha
- Thailand: 300 – 8,000 (3,000) ha
- Viet Nam: 50 – 700 ha

Project Objective

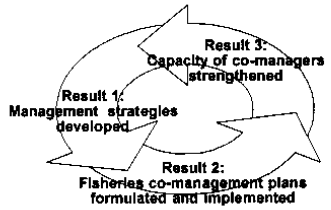
Sustainable optimal fish production from reservoirs through co-management

Co-management

Sharing of management between users and government

•3

Project Results



Preview of the Presentation

- What is management? What is adaptive (learning in/for) management?
- The Project
- Adaptive learning in reservoir fisheries development
- Points for discussion

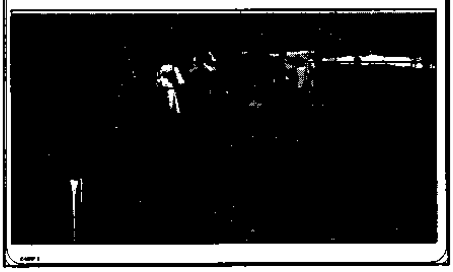
Adaptive learning in reservoir fisheries development

- In fisheries (management) policy and strategy formulation
- In fisheries (co-) management planning and implementation
- In capacity-building of fisheries co-managers

Adaptive learning in reservoir fisheries development

- In fisheries (management) policy and strategy formulation
- In local fisheries (co-) management planning and implementation
- In capacity-building of fisheries managers

Is there "co-management" at Bung Wa Tai, Lao PDR?



Co-management Planning and Implementation (CM P&I)

Faced with a high degree of complexity and uncertainty.

A possible guiding framework for interaction is Adaptive Learning (and Management)

•4

Important things to be kept in mind in CM P&I

- There are many reasons how and why to manage ("plurality")
- Local cultural values, norms and practices have to be respected
- All discussions on management have to be open

Plurality

There are 1000 ways to cook a fish!

There are 1000 ways to do (co-) management!

Management Reasons, Objectives and Activities

Many people ask (No. 2): „Are Co-management Plans concerned with *social* or *sociological* issues rather than *technical*"?

- Co-management plans – decision of the co-management partners!
- Co-management – jointly decided activities for technical, economic and social development!

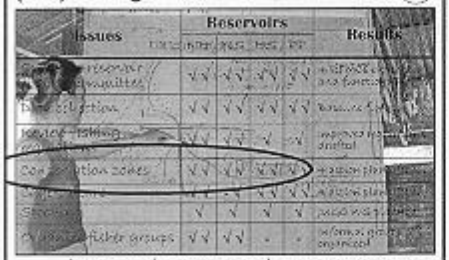
Typical (co-) management activities

- Stock and habitat enhancement
- Data collection and research
- Formulating fishery regulations
- Technology development
- Credit provision
- Licensing and access restrictions
- Strengthening of (co-)management organizations
- Awareness creation, and others

Hardware and software for CM P&I

•5

(Co-) Management Plans, Lao PDR



Conservation zones: Deciding on action

Conservation zones: Negotiating and demarcating

Management is not free!

(Viet Nam)

- There are conflicts with others who resist enforcement and taxation
- Dealing with authorities can be stressful too
- Family problems: Time spent on union work is voluntary; how to feed the kids?

Management has benefits, too!

(Viet Nam)

No increases in wild fish yields yet, but other tangible benefits have been realized:

- Over VND 20 million loaned out since June, 2000
- Value of recaptured stocked fish at least VND 34 million
- Mitigation of severe hardships

Many people ask (No. 3): What are our management priorities?

Do we want more fish or do we want democracy?

•6

"Democracy" is important for "Efficient Management"!

- Well functioning communities
  ⇒ important contribution to fisheries management
- Investing in the fishing community
  ⇒ investing in the resource
- To build stronger fishing communities
  ⇒ a function of fisheries management

Co-management: Satisfaction and benefits

Gender	Satisfaction Cambodia	Satisfaction Thailand	Benefit Vietnam	Benefit Thailand
Male	33%	75%	67%	73%
Female	58%	90%	8%	61%
Total	44%	82%	75%	32%

Benefit	Much better	Somehow better	No difference
Knowledge sharing	59%	16%	25%
Improved communication	32%	48%	20%
Opinions are heard	78%	22%	0%

Adaptive learning in reservoir fisheries development

- In fisheries (management) policy and strategy formulation
- In fisheries management planning and implementation
- In capacity-building of fisheries co-managers

Capacity-building of fisheries co-managers

- On-the-job support and training
- Joint user/Government officer (technical) workshops
- Regional training courses

Joint User/Government Officer Workshops

Example:

Structure of Joint User/Government Officer Workshops

- Preliminary proposal by co-management team (users & government staff)
- Background information ("specialist" lecture)
- Study visit (learning from "people who have done it")
- Formulation of action plans (Adaptation: "This is what WE will do!")

Importance of JOINT learning!

•7

Participants' statements

"Now we understand that conservation zone is not only to prohibit fishing [illegible] local p[illegible] chance [illegible] own re[illegible] propri[illegible] Lao PDR

"We like the workshop because we can exchange [illegible]rience of conserva- [illegible]zone management [illegible] others". (Fishe[illegible] Z[illegible])

"After the workshop I am convinced that we can can set up a conservation zone — before I was doubtful". (Villager, Thailand)

[illegible]t is easier for [illegible]mmunicate [illegible]chers". (Govt. [illegible] Thailand)

Regional Training Courses

Exercise: Regional Training Course on [illegible] management [illegible] 2004)

Methodological Approach

Training process as an exercise in co-management!

- Accepting complexity and uncertainty
- Giving importance to ownership of results
- Learning-by-doing/adaptive management
- Valuation of existing knowledge
- No distinction between "managers", etc.
- Teaching people to learn for themselves!

Traditional Teaching

Participatory and Adaptive Learning

Preview of the Presentation

- What is management? What is adaptive (learning in/for) management?
- The Project
- Adaptive learning in reservoir fisheries development
- Points for discussion

•8

Points for discussion

- Research/"learning about" is a management function
- As such it has to follow a management objective
- In order to be effective, users have to be involved in all stages of learning
- Management options emerging from such learning have to be negotiated between those concerned
- "It's not so important what we do, but how we do it"!

Adaptive learning is communicating…

Thank You!

5.7 Workshop photographs