
Selection Criteria and Co-Management Guidelines for
Harvest Reserves in Tropical River Fisheries

Dissemination / Training Report

UK Department for International Development
Fisheries Management Science Programme
Project R7043

Central Research Institute for Fisheries, Indonesia

Provincial Fisheries Services, Indonesia
MRAG Ltd, UK

June 2000

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Collaborators:

Central Research Institute for Fisheries, Indonesia (**CRIFI**),
Jalan K.S. Tubun, Petamburan VI, P.O. Box 6650, Slipi, Jakarta 11410 A, Indonesia

Provincial Fisheries Services (**Dinas Perikanan**)
South Sumatra Province, Jalan Kapten A. Rivai II, Palembang, South Sumatra
Jambi Province, Jalan MT. Haryono No. 9, Jambi 36129, Jambi
West Kalimantan Province, Jalan Sutan Syahir No. 16, Pontianak 78116 A, West Kalimantan

MRAG Ltd, 47 Prince's Gate, London SW7 2QA, UK

Report Authors:

Daniel Hoggarth (MRAG Ltd),
Phillip Townsley (Independent Consultant),
Fatuchri Sukadi (CRIFI)

June 2000

Dissemination / Training Report

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1. Introduction

This report briefly describes the dissemination and training activities undertaken at the Indonesian field sites at the end of project R7043.

The Dissemination / Training (D/T) workshops were held in each of the project's three provincial field sites within the period 27 April to 6 May 2000 (see Annex 1 for detailed itinerary). Each workshop lasted for 2.5 to 3 days. The first day at each site included presentations on the project results and other introductory material, and was attended by approximately 50 participants in each province. Training on the use of the project guidelines was then conducted in the following two days to a core group of approximately 30 participants at each site.

Participants for the D/T workshops were invited from a wide range of local institutions including the Dinas Perikanan Fisheries Services, other government offices, academic bodies and NGOs. Village members from some of the project field study sites were also invited (see Annex 2 for full lists of participants at each province).

The objectives of the three provincial D/T workshops were:

- C to disseminate the project's research results about harvest reserves;
- C to improve understanding of alternative management approaches; and
- C to improve understanding of the basic principles of co-management.

Brief details on the D/T activities and the key lessons learnt in the process are given in sections 2 and 3 of this report. The workshops were led by Daniel Hoggarth, Phillip Townsley and CRIFI's Achmad Sarnita, Endi Setiadi and Sonny Koeshendrajana.

Section 4 of this report describes the latest position on the applications for local funding of co-management Pilot Projects, as discussed during the field work at each site. Section 5 outlines the discussions and outputs from a final Project Completion Workshop that was held at CRIFI headquarters in Jakarta on 8 May 2000, following the three provincial workshops.

2. Dissemination / Training Activities

The D/T activities undertaken in each workshop varied significantly between the three provinces, in response to lessons learnt in the process. At the first D/T workshop in Jambi province, the dissemination material and the resulting guidelines were mostly presented 'up-front' on the first day. The second and third days were then used to consider how the guidelines might be applied in the local conditions in Jambi. The D/T workshop in Jambi thus comprised the following broad schedule:

- Day 1
- C Introductions
 - C Present research results
 - C Present contents of Guidelines
 - Technical criteria
 - Social criteria
 - Institutional criteria
- Day 2
- C *Apply criteria in local conditions*
 - Working groups on identification of local and catchment management units
 - Working groups on identification of co-management partners and their roles

- Day 3
- C *Apply criteria in local conditions*
 - Working groups on management plan components
 - C Discussion of training requirements and next steps
 - C Workshop Evaluation

Feedback from the workshop participants indicated that this structure had been hard to follow, due to the complexity of the issues involved (see Section 3). In the subsequent D/T workshops in South Sumatra and West Kalimantan, a revised workshop format was used. At these sites, the dissemination material was broken down into smaller, discrete sections. In each step, instead of simply presenting the guidelines, the participants were first invited to think for themselves which reserve selection criteria etc could be applicable for that stage. The project guidelines and/or criteria on that component were then discussed with the participants after their own ideas had been contributed. More pictorial material was also used to illustrate the concepts at each step. Finally the participants were given the opportunity to consider how well their own local reserves fitted the identified criteria or guidelines at each stage. The revised D/T workshop structure was then as follows:

- Day 1
- C Introductions
 - C Present research results
 - C Discuss technical/ecological criteria for reserve selection
 - Apply technical/ecological criteria to existing local reserves*
- Day 2
- C Discuss social and institutional criteria for reserve selection
 - Apply social and institutional criteria to existing local reserves*
 - C Discuss stakeholder identification
 - Identify stakeholders around existing local reserves*
 - C Discuss management roles for flood-plain river fisheries and reserves
 - Distribute roles among stakeholders around existing local reserves*
 - C Discuss management levels (and spatial scales or units)
 - Identify management activities at different management levels*
- Day 3
- C Discuss options for management and the process of management
 - Identify steps towards improved management of existing local reserves*
 - C Workshop Evaluation

3. Evaluation and Key Lessons

At the end of each D/T workshop, an evaluation exercise was conducted in which each participant scored ten questions on a range from 0 to 10. The questions for the evaluation covered two general areas:

- (1) the participants understanding (comprehension) of the material disseminated; and
- (2) the participants impressions on the organisation and presentation of the workshop.

As shown in Table 1 below, the average scores for both the understanding of the material and the appraisal of the workshops increased from the first workshop in Jambi to the subsequent ones in South Sumatra and West Kalimantan. Although the 'comprehension' scores indicate that the material was reasonably well understood at each of the sites, it is interesting that the lowest scores were given to the question 'Are you now ready to start co-management practices?'. Clearly, further training or practice on the principles will still be required before effective co-management could be achieved.

It is also noticeable that the 'workshop appraisal' scores are lower than the 'comprehension'

scores. With hindsight, more time should have been allocated for the CRIFI/MRAG team to work together in Jakarta on the joint planning and preparation for the workshop (only one day was allocated for this, and much of that was lost due to a delayed flight).

Table 1. Average scores (on a scale of 0 to 10) from the evaluation exercises conducted at the end of each provincial D/T workshop.

Question	Jambi	South Sumatra	West Kalimantan
Do you now understand the meaning of 'co-management'?	7.7	7.3	7.2
Do you now understand the meaning of 'stakeholder'?	7.2	7.8	7.7
Do you now understand the meaning of 'management levels' (e.g. catchment and local)?	6.5	7.6	6.9
Do you now understand the meaning of 'management process'?	6.0	7.3	6.9
Do you now understand the project's Management Guidelines?	5.5	6.2	6.2
Are you now ready to start co-management practices?	5.0	5.3	6.1
Average score for 'comprehension' of principles	6.3	6.9	6.8
How did you rate the workshop trainers?	6.8	6.9	7.6
How die you rate the workshop presentations?	6.5	6.7	7.1
How did you rate the workshop organisation?	5.0	6.4	5.9
How did you rate the workshop timing?	5.5	5.4	5.4
Average score for workshop appraisal	6.0	6.4	6.5

The following key lessons were learnt during the D/T workshops:

1. The terminology and language used in the project's Management Guidelines are difficult both to understand and to translate easily into bahasa Indonesian.
There is thus a need to develop simple (e.g. graphical) means of explaining the key concepts, the selection criteria and the necessary steps towards co-management.
[The pictorial training material developed for the 'revised' D/T workshops provides much suitable material for this purpose]
2. Lengthy explanations of the co-management process are less valuable than guided analysis of existing conditions.
The training process thus needs to be broken up into easily comprehensible steps.
3. Based on their experience, local fisheries officers and other stakeholders are able to identify key management issues and propose appropriate management solutions.
4. The knowledge and skills required for supporting co-management are best acquired through "learning by doing".

5. The process of acquiring such necessary skills needs to be long-term.
6. Feedback sessions, where practitioners reflect on their experience and draw out lessons learnt, are probably the most important single element in training for a process such as co-management
7. In consideration of the above points, training (e.g. in the proposed co-management Pilot Projects) should probably consist of:
 - C short workshops to establish principles and plan activities step-by-step;
 - C guided fieldwork; and
 - C regular "feedback" sessions to identify issues and lessons learnt.

4. Update on Pilot Project Proposals

During the D/T workshops, discussions were also held with key provincial collaborators (especially from the Dinas Perikanan offices and the BAPPEDA planning agencies) on the applications for local funding of co-management 'Pilot Projects' at each site.

At the time of the workshops, and still at the time of report submission - 20 June 2000, the Indonesian government had still not announced their budget allocations for the current financial year (starting in April 2000). It is therefore still not yet known whether or not the proposals for provincial pilot projects will be approved this year. It was reported that the following factors may have been significant in holding up events this year:

- C The Indonesian government's planning and accounting systems are now in a transition phase. Decentralised management was initiated in 1999 with the passing of the Regional Autonomy Act and the Regional Financial Balance (UU Otonomi Daerah 22/1999 and UU No. 25/1999 respectively). The actual details on the sharing of power and finances between central and provincial governments are, however, still under discussion, and many budgeting processes have been held up in the meantime. This redirection of government power represents a major change in policy from the centralised control of the last 50 years and will no doubt take time to implement.
- C The period for financial accounting is also in a transition phase. Up to March 2000, the Indonesian government's financial year ran from April to March. From 2001, a calendar year system will be introduced (i.e. from January to December). It is assumed that the current year will operate on a pro-rata nine month budget (April to December), but no decision had been formally announced, even two months into the period.
- C Following Indonesia's financial crisis in 1998, the currency today is still very weak (around three to four times lower than in 1997), and the limited government budgets are clearly being stretched between many competing priorities.

Discussions with the team members indicated that only the pilot project proposal for Jambi province actually covered the institutional development components required for co-management (stakeholder consultations, participatory design of management plans etc). When the original proposals were drafted in May 1999, most of the provincial collaborators clearly still had only a limited understanding of the actual activities that could be involved. Both South Sumatra and West Kalimantan have existing programmes and some proposals in line for reserve development and fishery monitoring, but these do not really cover the full requirements of *co-management* pilot projects.

Assisted by the revised workshop structure, the design of the pilot projects was discussed during the provincial workshops within a broad framework of stakeholder participation and collaboration. As a result, the requirements of the pilot projects are now better understood by all of the potential collaborators. Even if some funding is eventually committed for the 2000/2001 year, it may still be more effective for the collaborators to re-submit clarified pilot project proposals for the 2001 funding year. This would be necessary in any case for South Sumatra and West Kalimantan, though Jambi may be ready to proceed with some activities this year. As shown in the following Section 5, the collaborators have committed themselves to the re-submission of proposals, *if* necessary, and now also have the capacity to prepare more adequate proposals.

To assist any such re-submission process, new briefing documents were prepared by the project team during the D/T field trip giving suggestions on possible components of the Pilot Projects in each province (see Annexes 3a and 3b). These documents include notes indicating where more detailed guidance may be found in the project's Management Guidelines (showing how the Guidelines may be used in such a practical situation). The briefing document for South Sumatra (Annex 3b) differs from that for Jambi and West Kalimantan (Annex 3a) due to the additional complexities posed by the government auction system and the lack of existing community use rights in South Sumatra.

5. Project Completion Workshop - Uptake and Recommendations

Following the three D/T workshops, a final Project Completion Workshop was held at the CRIFI headquarters in Jakarta on 8 May 2000. This workshop was attended by Dinas Perikanan (Fisheries Service) representatives from two of the three provinces (the West Kalimantan representative was unfortunately unable to attend), and by representatives of interested national government agencies and NGOs (see Annex 2).

The objectives of the Project Completion Workshop were:

- C to briefly present the project's results and guidelines at the national level;
- C to report on the D/T activities and their reception in each province; and
- C to discuss and agree responsibilities for the next steps required to ensure uptake of the project outputs.

The workshop discussions on 'next steps' were chaired by CRIFI's Director, Dr Fatuchri Sukadi, and were organised into three key areas:

- C policy options (creation of a more enabling environment for co-management);
- C the preparation of technical guidelines based on the project outputs, for field use; and
- C the status of the pilot projects, and their funding opportunities and constraints, and required support.

The recommendations agreed by the workshop delegates were as follows:

1. Each Dinas Perikanan (Provincial Fisheries Service) should inventarise and evaluate the existing harvest reserves in their province, under the guidance and support of the national Directorate General for Fisheries (DGF), CRIFI and the National Institute for Sciences (LIPI, Biology Department).
2. The project's Management Guidelines should initially be implemented by the use of Pilot

Projects (PPs) in Jambi, South Sumatera and West Kalimantan. Proposals for such PPs should be submitted by the provincial Dinas Perikanan offices for funding by provincial budget sources (APBD). Consideration should also be given to the inclusion of South and Mid Kalimantan as possible Pilot Project provinces.

3. If the existing PP proposals are not supported in the 2000/2001 budget, they should be re-drafted and re-submitted for the 2001/2002 budget.
4. Support for the PPs in the form of coordination and centralised assessment will be provided by CRIFI under a 'Policy Analysis Research' project included in this year's research programme.
5. The workshop also noted that the DFID Fisheries Science Management Programme (FMSP) is ready to fund a follow-on research project, provisionally entitled 'Action-oriented process monitoring for river fisheries co-management pilot projects'. Funding of this project is however conditional on the confirmation of local (Indonesian, provincial) funding for implementation of the PPs.

Following the experiences of the D/T workshops, it was also agreed that the project's Management Guidelines (MGs) are too detailed and complicated to be used effectively by local users such as extension workers, customary leaders and local people. It was therefore agreed that the MG should be simplified and published by DGF in the form of "Technical Guidelines" on harvest reserve selection and management. It was agreed that the Technical Guidelines should be:

1. derived from the concepts and material in the project's Management Guidelines;
2. produced in a simple form (e.g. as posters with a strong graphical basis supported by simple text), to be easily understood and used as a source for education, training and extension;
3. recognise the importance of regional, local and community-based rules and regulations;
4. delivered widely via the mass media, meeting forums, training workshops etc., and
5. formulated and developed by a 'Small Team' consisting of CRIFI, DGF, the Provincial Fishery Services, and NGOs (in particular Bina Swadaya).

The following action plan was agreed at the workshop:

Activity	Deadline	Implementing Institutions
1. Inventarisation and evaluation of harvest reserves by province	Dec. 2000	National Institute for Science (LIPI) Dinas Perikanan, CRIFI
2. Production of Technical Guidelines	July 2000	Small Team (CRIFI, DGF, Provincial Fishery Services, and NGOs)
3. Implementation of PP	Dec. 2000	Dinas Perikanan, CRIFI

Annex 1. Itinerary

Jakarta

23-25 Apr D. Hoggarth & P. Townsley travel to Indonesia

Wed, 26 Apr Briefing meeting with CRIFI collaborators
Air travel to Jambi

Jambi

Thu, 27 Apr Presentations and discussion of project results and guidelines
Working groups on technical / ecological selection criteria for reserves

Fri, 28 Apr Working groups on social aspects of fisheries management

Sat, 29 Apr Working groups on integrated management of fisheries
Teamwork - Jambi evaluation and planning for South Sumatra workshops

Sun, 30 Apr Road travel to Palembang
Further preparation for South Sumatra workshops

South Sumatra

Mon, 1 May Presentations and discussion of project results and guidelines
Working groups on technical / ecological selection criteria for reserves

Tue, 2 May Working groups on social aspects of fisheries management

Wed, 3 May Working groups on integrated management of fisheries
Air travel to Jakarta (evening)

West Kalimantan

Thu, 4 May Air travel to Pontianak (early morning)
Presentations and discussion of project results and guidelines
Working groups on technical / ecological selection criteria for reserves

Fri, 5 May Working groups on social aspects of fisheries management

Sat, 6 May Working groups on integrated management of fisheries
Air travel to Jakarta (afternoon)

Jakarta

Sun, 7 May Preparation for Project Completion Workshop

Mon, 8 May Project Completion Workshop
Presentations by team members on dissemination activities
Discussion by collaborators and delegates and agreement on next steps

Tue, 9 May D. Hoggarth & P. Townsley travel home

Annex 2. Workshop Participation Lists

Dissemination Workshop 1 – Jambi, 27-29 April 2000

No	Name	Institution
1	Mr. Mahyuddin	Agency for Regional Development Planning
2	Mr. M. Ridho M.	Agency for Regional Development Planning
3	Mr. H.M Anief Z.	Agency for Regional Development Planning
4	Mr. Hendri Y.	Assessment Institute of Agricultural Tech.
5	Ms. Kurnianita TS	Research & Assessment Station of Agr.Tech.
6	Mr. Syahrizal	University of Batanghari
7	Ms. Mustika K.	University of Batanghari
8	Mr. Mudiman	Provincial M.of. Agriculture Office
9	Mr. Ali Mursalin	Provincial M.of. Agriculture Office
10	Mr. H. Suarman	Provincial Fishery Service of Jambi
11	Mr. Ade Rusli	Provincial Fishery Service of Jambi
12	Mr. Subarjo	Provincial Fishery Service of Jambi
13	Mr. Zaenal Arifin	Provincial Fishery Service of Jambi
14	Ms. Farida	Provincial Fishery Service of Jambi
15	Mr. Nuryakin Rasyid	Provincial Fishery Service of Jambi
16	Mr. M. Yusuf HS	Provincial Fishery Service of Jambi
17	Ms. Asnawati	Provincial Fishery Service of Jambi
18	Mr. M.Subchan	Provincial Fishery Service of Jambi
19	Ms. Iriani Gumanti	Provincial Fishery Service of Jambi
20	Mr. Musna Remaja	Provincial Fishery Service of Jambi
21	Mr. Budi Cahyono	Provincial Fishery Service of Jambi
22	Ms. Suyati	Provincial Fishery Service of Jambi
23	Mr. Junaidi	Provincial Fishery Service of Jambi
24	Mr. Paijo Yuwandono	Provincial Fishery Service of Jambi
25	Mr. Marzuki	Provincial Fishery Service of Jambi
26	Mr. Mulyadi	District Fishery Service of Batang Hari
27	Mr. Akhyar	District Fishery Service of Batang Hari
28	Mr. Syamsuddin	District Fishery Service of Batang Hari
29	Mr. Suliarsa	District Fishery Service of Batang Hari
30	Mr. Joko Fitrianto	Freshwater Dev. Sub Center (Loka), Sei Gelam
31	Mr. Edy Barkat	Freshwater Dev. Sub Center (Loka), Sei Gelam
32	Mr. Supriadi	Freshwater Dev. Sub Center (Loka), Sei Gelam
33	Mr. Muhtar. D	Arang-arang Reserve
34	Mr. A.Malik	Arang-arang Reserve
35	Mr. Thohir. M	Arang-arang Reserve
36	Mr. Aluwi. T	Arang-arang Reserve
37	Mr. Mas'ud S.	Arang-arang Reserve
38	Mr. R. Bujang Anang	Teluk Kenali Reserve
39	Mr. Ismail J.	Danau Lamo Reserve
40	Mr. Murlius Jakpar	Danau Lamo Reserve
41	Mr. M.Saman Sani	Danau Lamo Reserve
42	Mr. Harun	Danau Lamo Reserve
43	Mr. Abdullah Ahmad	Danau Lamo Reserve
44	Mr. Ahmad Sujono	Danau Teluk Reserve
45	Mr. Samuel	Research Station for Freshwater Fisheries, Palembang
46	Mr. Sidarta Gautama	Research Station for Freshwater Fisheries, Palembang
47	Dr. Daniel Hoggarth	MRAG
48	Dr. Philip Townsley	MRAG
49	Mr. Endi Setiadi K.	CRIFI
50	Dr. Achmad Sarnita	CRIFI
51	Dr. Sonny Koeshendrajana	CRIFI
52	Ms. Novenny Wahyudi	CRIFI

Dissemination Workshop 2 – Palembang, South Sumatra, 1-3 May 2000

No.	Name	Institution
1.	Ms. Iin Siti Aminah	Palembang University of Muhamadyah
2.	Mr. Amir Hamzah	Palembang University of Muhamadyah
3.	Ms. Eta Yunita	Palembang University of Muhamadyah
4.	Mr. Ahmad Muhaimin	NGO
5.	Ms. Luluk Risa Putri	Institute of Agricultural Information and Extension
6.	Ms. Zainora	Institute of Agricultural Information and Extension.
7.	Mr. M. A. Isgoro	Hatchery Installation of Sungai Air Santan, Linggau
8.	Mr. M. Agoes	Hatchery Installation of Sungai Air Santan, Linggau
9.	Mr. R. Asmarajaya	Provincial Fishery Service of South Sumatera
10.	Mr. Rooslan Saleh	Provincial Fishery Service of South Sumatera
11.	Ms. Ade Ranti Fatia	Provincial Fishery Service of South Sumatera
12.	Ms. Rizka Noviarini	Provincial Fishery Service of South Sumatera
13.	Mr. Aries Irwan Wahyu	Provincial Fishery Service of South Sumatera
14.	Ms. Suhaimi	Provincial Fishery Service of South Sumatera
15.	Ms. Yuliati	Provincial Fishery Service of South Sumatera
16.	Mr. Subhan	Provincial Fishery Service of South Sumatera
17.	Mr. Boy Hermansyah	Provincial Fishery Service of South Sumatera
18.	Mr. M. Hanafi	Provincial Fishery Service of South Sumatera
19.	Ms. Tetty Hutapea	Provincial Fishery Service of South Sumatera
20.	Mr. Irpan	Provincial Fishery Service of South Sumatera
21.	Mr. Syamsu Darman	Provincial Fishery Service of South Sumatera
22.	Mr. Triyanto	Provincial Fishery Service of South Sumatera
23.	Ms. Emilni Trisiana	District Fishery Service of Musi Rawa (MURA)
24.	Mr. Muchlis Bakar	District Fishery Service of Musi Banyuasin (MUBA)
25.	Ms. Nora Agustini	District Fishery Service of Ogan Komering Ulu (OKU)
26.	Mr. Syafriyulis	District Fishery Service of Ogan Komering Ilir (OKI)
27.	Mr. Nurfirman	District Fishery Service of Ogan Komering Ilir (OKI)
28.	Mr. Harun Effendie	District Fishery Service of Ogan Komering Ilir (OKI)
29.	Mr. Zaini Kurdi	District Fishery Service of Ogan Komering Ilir (OKI)
30.	Mr. Himyar Mazani	District Fishery Service of Lahat
31.	Ms. Chandra Iela	Municipal Fishery Service of Palembang
32.	Mr. Suratman	Municipal Fishery Service of Palembang
33.	Mr. Junaidi	Municipal Fishery Service of Palembang
34.	Mr. upomo	Municipal Fishery Service of Palembang
35.	Mr. Ahmad Buhari	Municipal Fishery Service of Palembang
36.	Ms. Atiarta	Municipal Fishery Service of Palembang
37.	Ms. Sri Dewi Titisari	Municipal Fishery Service of Palembang
38.	Dr. A. Karim Gaffar	Research Station for Freshwater Fisheries, Palembang
39.	Mr. Ondara MAq	Research Station for Freshwater Fisheries, Palembang
40.	Mr. Samuel	Research Station for Freshwater Fisheries, Palembang
41.	Mr. Susilo Adjie	Research Station for Freshwater Fisheries, Palembang
42.	Ms. Emmy Dharyati	Research Station for Freshwater Fisheries, Palembang
43.	Mr. Dadiék Prasetyo	Research Station for Freshwater Fisheries, Palembang
44.	Sidarta Gautama	Research Station for Freshwater Fisheries, Palembang
45.	Dr. Daniel D. Hoggarth	MRAG
46.	Dr. Philip G. Townsley	MRAG
47.	Dr. Achmad Sarnita	Central Research Institute for Fisheries
48.	Mr. Endi Setiadi K.	Central Research Institute for Fisheries
49.	Dr. Sonny Koeshendrajana	Central Research Institute for Fisheries
50.	Ms. Novenny A.Wahyudi	Central Research Institute for Fisheries

Dissemination Workshop 3 – Pontianak, West Kalimantan, 4-6 May 2000

No.	Name	Institution
1.	Mr. Hermany	Agency for Regional development Planning (<i>Bappenas</i>)
2.	Mr. Idrin M. Su'ud, MA	Agency for Environmentally Impact Control (<i>Bappedal</i>)
3.	Mr. Agoes Kordiat	Regional Dep.of. Agriculture Office
4.	Mr. Kiswaya	Regional Dep. of. Public Service Office
5.	Mr. Muhammad	Natural Resource Conservation Office (<i>KSDA</i>)
6.	Mr. Astaman Z.	Agency for Regional Research and development
7.	Mr. Sigit S.W.	Provincial Assembly of Culture
8.	Mr. Toni Kurniawan	NGO
9.	Mr. Sumarsono	NGO
10.	Mr. Radjudin Samad	High School of Fisheries
11.	Mr. Ade Ashan Arifin	Informal leader
12.	Mr. H. Hadimulyo	Provincial Fishery Service of West Kalimantan
13.	Mr. Djapri Abdullah	Provincial Fishery Service of West Kalimantan
14.	Mr. Bambang Sugito	Provincial Fishery Service of West Kalimantan
15.	Mr. Suratidjo	Provincial Fishery Service of West Kalimantan
16.	Mr. Suasa Dilapanga	Provincial Fishery Service of West Kalimantan
17.	Mr. Dailami	Provincial Fishery Service of West Kalimantan
18.	Ms. IGA Istanawati	Provincial Fishery Service of West Kalimantan
19.	Mr. Zaiyadi, AR	Provincial Fishery Service of West Kalimantan
20.	Ms. Erli	Provincial Fishery Service of West Kalimantan
21.	Mr. de Djafar Basrie	Provincial Fishery Service of West Kalimantan
22.	Mr. Gatot Budiono	Provincial Fishery Service of West Kalimantan
23.	Mr. Rasman Djamli	Provincial Fishery Service of West Kalimantan
24.	Mr. Hasan Arief	Provincial Fishery Service of West Kalimantan
25.	Mr. Edy Karmilan	Provincial Fishery Service of West Kalimantan
26.	Mr. Donatus	Provincial Fishery Service of West Kalimantan
27.	Mr. Mulia Syah	Provincial Fishery Service of West Kalimantan
28.	Mr. Heri Purwanto	Provincial Fishery Service of West Kalimantan
29.	Mr. Bartolomeus Diaz	Provincial Fishery Service of West Kalimantan
30.	Mr. Kris Handoko	Provincial Fishery Service of West Kalimantan
31.	Mr. Rachmad M. N. M	Provincial Fishery Service of West Kalimantan
32.	Mr. Yoga Paksi I.	Provincial Fishery Service of West Kalimantan
33.	Ms. Harniyanti	Provincial Fishery Service of West Kalimantan
34.	Ms. Jihan Boyd	Provincial Fishery Service of West Kalimantan
35.	Mr. Zainal Abidin	Provincial Fishery Service of West Kalimantan
36.	Mr. Lebong Ribut	Provincial Fishery Service of West Kalimantan
37.	Ms. Herti Herawati	Institute for Quality Control of Fishery Products
38.	Mr. M. Abduhsamad	Fishery Service Branch of Kapuas Hulu
39.	Mr. Ade Maulana	Fishery Service Branch of Kapuas Hulu
40.	Mr. Bernard Saragih	Fishery Service Branch of Sintang
41.	Mr. Ade Dimsyah	Fishery Service Branch of Sangau
42.	Mr. Teddy Prawoto	Fishery Service Branch of Pontianak
43.	Mr. Reza Triansyah	Fishery Service Branch of Sambas
44.	Mr. Didit Suhaidi	Fishery Service Branch of Bengkayang
45.	Mr. Muhammad Saleh	Fishery Service Branch of Ketapang
46.	Ms. Siti Kartini	Fishery Service Branch of Pontianak Municipality
47.	Mr. Rahimin	Fishery Service Branch of Pontianak Municipality
48.	Mr. Lukman Senda	Fisheries Extension Officer, District of Sambas
49.	Mr. A. Rachman	Fisheries Extension Officer, District of Pontianak
50.	Mr. M. Said	Fisheries Extension Officer, District of Pontianak
51.	Mr. Sigit Saptowibowo	Openwater Fisheries Development Subcenter (Loka)
52.	Ms. Nurul Ekawati	Openwater Fisheries Development Subcenter (Loka)
53.	Dr. Daniel Hoggarth	MRAG
54.	Dr. Philip Townsley	MRAG
55.	Dr. Ahmad Sarnita	Central Research Institute for Fisheries
56.	Mr. Endi Setiadi K.	Central Research Institute for Fisheries
57.	Dr. Sonny Koeshendrajana	Central Research Institute for Fisheries

Project Completion Workshop – Jakarta, 8 May 2000

No	Name	Institution
1.	Dr. Enan M Mulyana	Faculty of Fisheries and Marine Science, Bogor Agricultural Institute
2.	Bambang Edi Priono, MSc	Directorat of Programming, Directorate General for Fisheries
3.	Dr. Purwanto	Directorate of Resource Dev., Directorate General for Fisheries
4.	Dede Irving Hartoto, MSc	Center Research Inst. For Limnology, LIPI
5.	Arihadi	Yayasan Bina Swadaya (NGO)
6.	Asmara Jaya	District Fishery Service of Ogan Komering Ilir
7.	Nuryakin Rasyid	Provincial Fishery Service of Jambi
8.	H. Yusuf	Provincial Fishery Service of Jambi
9.	Dr. Daniel Hoggarth	MRAG
10.	Dr. Philip Townsley	MRAG
11.	Dr. Fatuchri Sukadi	Central Research Institute for Fisheries
12.	Dr. Achmad Poernomo	Central Research Institute for Fisheries
13.	Ms. Novenny A Wahyudi	Central Research Institute for Fisheries
14.	Dr. Supriyono Eko Wardoyo	Central Research Institute for Fisheries
15.	Wardana Ismail	Central Research Institute for Fisheries
16.	Ms. Suwidah	Central Research Institute for Fisheries
17.	Ms. Endang Pratiwi	Central Research Institute for Fisheries
18.	Ongko Praseno	Central Research Institute for Fisheries
19.	Ms. Erfina Savitri	Central Research Institute for Fisheries
20.	Endi Setiadi Kartamihardja	Research Institute for Freshwater Fisheries, Skmdi
21.	Dr. Achmad Sarnita	Research Institute for Freshwater Fisheries, Skmdi
22.	Dr. Sonny Koeshendrajana	Research Institute for Freshwater Fisheries, Skmdi
23.	Dr. Karim Gaffar	Research Station for Freshwater Fisheries, Plbg
24.	Ondara	Research Station for Freshwater Fisheries, Plbg
25.	Krismono	Research Installation for Freshwater Fisheries, Jtlhr
26.	Ms. Adriani SN	Research Installation for Freshwater Fisheries, Jtlhr
27.	Kunto Purnomo	Research Installation for Freshwater Fisheries, Jtlhr
28.	Didik Wahyu HK	Research Installation for Freshwater Fisheries, Jtlhr
29.	Hendra Satria	Research Installation for Freshwater Fisheries, Jtlhr

Annex 3a. Suggestions for a Pilot Project Proposal, Jambi and West Kalimantan Provinces

A. Aims and Objectives

- To introduce 'co-management' practices into two or three villages in <Jambi / West Kalimantan>.
- To establish improved management regulations designed to sustain fish stocks and improve fishing incomes and 'livelihoods'.
- To develop skills and capacity for improved management of natural resources both in Government offices and at village level
- To investigate the costs and benefits of these approaches and the possibilities of extension into other villages in <Jambi / West Kalimantan> and other provinces.

B. Expected benefits of the proposed co-management approach

The above activities would provide the following potential benefits for <Jambi / West Kalimantan> province:

- The introduction of reserves or other management tools in the co-management villages (if designed according to the 'Guidelines') should increase *fish stocks* in local waters, and increase the *catch rates and income of local people*. In the CRIFI/Diskan/MRAG 'River Fisheries Reserves' project, fish stocks in villages with successful reserves in Kalimantan Barat were found to have fish stocks up to 20 times more abundant than those in villages without reserves. Catch rates in the village waters near the reserves were up to 10 times higher than in the villages without reserves. These differences are due to a range of ecological, physical and social factors in addition to the existence of the reserve, but provide some indication of possible effects. The pilot project sites could be encouraged to monitor their own costs and benefits using simple methods.
- Depending on local conditions and the design of reserves or other tools, the activities within the co-management villages may also increase fish abundances (and resulting economic benefits) in *adjacent villages, and other nearby areas*.
- Adoption of these approaches will provide a mechanism for the *sustainable development* of <Jambi / West Kalimantan>'s river fisheries, thereby either increasing fishery incomes in the future or at least sustaining existing production.
- The collaboration between local people and government staff would increase *skills and capacity* for the management of fishery resources. The proposed approaches are designed to empower local people to manage their own resources.
- The activities would contribute to the *legal commitments* of each province under Undang Undang No. 22, 1999 on Otonomi Daerah; and the Wasdi Decree No. 996, 1999. These recent acts both emphasise the need for local participation in management and the orientation of benefits towards poorer community members.

C. Project Activities

Phase 1 - Selection of Project Sites (6 months?)

'Pre-select' about 10 *candidate* flood-plain villages which may be suitable for the introduction of the proposed co-management activities (i.e. as below)

- Make this initial selection of possible units by discussions between catchment-level stakeholders (e.g. Diskan, Bappeda, KSDA, Balitbangda, LPTP), and using the selection criteria in the project Management Guidelines (see sections 2.1 & 3.1, and the illustrations given at the workshop).

Make a **final selection** of two or three of the above 10 units for initial development of co-management practices (e.g. as a pilot project):

- Decide how to select the units, and which ones to select by discussions with local people. Use a process of '*self-selection*' to choose the best villages.
- *Ask the villagers* if they wish to participate in the new management approach (see the selection criteria in the Guidelines - section 4.1). Do not force the villages to co-operate.

Phase 2 - Establishing conditions and incentives for co-management (6 months?)

In each *village* ('co-management unit'), hold discussions between the catchment and local stakeholders to agree on a set of **conditions** that will be followed in that unit, e.g.:

- The local community agree to develop a *management plan* for the fishery, including technical and institutional strategies for conservation, access rights, conflict resolution, enforcement etc (see the ideas in the Guidelines - section 4.3). Such a management plan should include harvest reserves, or other tools, as selected by the community, and not forced on them 'top-down' by the catchment stakeholders.
- The community agree to develop a simple *monitoring system* (of both inputs and outputs), that they will implement to provide feedback and learning on their actions (see ideas in Guidelines section 2.4 and 4.3).
- The community agree to *discuss* their management of the system, and their successes and failures with catchment stakeholders at least annually. If the community's management tools do not seem to be working, they should agree to consider alternative options.
- The catchment stakeholders agree to *support* the co-management unit as required and requested by the local people (e.g. by giving training, or support for rule enforcement or development of supporting legislation).
- Note that the conditions do not need to be exactly the same in each unit.

Also In each *village*, hold discussions between the catchment and local-level stakeholders to agree on a set of **incentives** that will promote effective management in the unit, and their support by administrators, e.g.:

- The community has the right to control *access* to fishing within the co-management unit, e.g. to restrict fishing by people from outside their village
- *on condition* that the catchment stakeholders agree that the community is effectively managing the resource for the benefits of its people.
- The community has the right to charge a fee for fishing to *raise income* for village development and pay for the costs of management.

At the catchment level, discuss options for developing a **monitoring programme**, to assess the achievements in the different co-management units, and provide feedback on the most successful approaches (see the ideas in Sections 1.6, 2.4, 4.3 and 4.4 of the Guidelines). For example:

- The monitoring programme may include the data collected by the villages for their own monitoring (probably quite simple data), and also include simple data from *other locations* for comparison. The comparisons should show whether the co-management units are providing better or worse results than in other nearby villages (i.e. those that are not included in the co-management programme).
- The data from the monitoring programme could be *assessed annually*, at meetings of both the catchment and local-level stakeholders. Such meetings would provide an opportunity for the village members from the different co-management units to get together and discuss their experiences. The costs of these meetings should be paid for by Dinas Perikanan (or by the pilot project in the initial years).
- The feedback from the monitoring programme should be used to *improve* the management in each unit. The villages should thus take action based on the results, when appropriate, and not get stuck with fixed or inflexible management plans (i.e. use adaptive management).
- As described in Section 2.4 of the Guidelines, the assessment of each co-management unit should include both *technical inputs and outputs and also institutional criteria* (e.g. are the regulations being enforced? if not, why not?).

Also at the catchment level, discuss options for the development of an institutional structure for **integrated catchment management** to support the co-management units and provide advice and

representation on external factors. For example:

- The structure could include representatives from kabupaten-level government offices within the '*sub-catchment area*' of the co-management units (e.g. Kab. Kapuas Hulu for the Danau Sentarum area).
- The structure could include representatives of *different government agencies* (agricultural, industrial, forestry, plantations, research and development, Bappeda etc) as required to represent the main impacts in the sub-catchment.
- The 'institutional structure' may either be (1) a *simple mechanism* for occasional contacts and discussions between agencies, as and when they are needed; or (2) a more *formal committee of representatives* from the different agencies that meets on a regular basis to discuss catchment development.
- In addition to meetings between stakeholders, channels may also be created for the flow of information between partners (including both feedback and new ideas for improving management).

Phase 3 - Implementation of co-management (2 years?)

Work with the communities in each co-management *unit* to initiate management practices in their local area. See the ideas for village-level 'key steps' in the Guidelines (Section 4.2), e.g.:

- Identify stakeholders, their local problems, objectives and possible solutions.
- Assess the fishery and consider management options (e.g. the use of harvest reserves or other tools).
- Develop an adaptive management plan (including both 'technical and insitutional' components, initial management tools and systems for monitoring, enforcement and adaptation).
- Implement the management plan. Provide legal basis and support as required.
- Publicise the objectives and scope of the plan, using meetings, leaflets, etc.
- Monitor the local fishery and consider local options for adaptation and improvement.
- Note that these activities are *mainly* carried out by the local people, but with some support, as *required* from catchment-level stakeholders.

At the sub-catchment level, provide support to the co-management units, e.g.:

- Study the outcomes of management in each of the villages and provide feedback on their successes and failures and possibilities for improvements.
- Arrange annual meetings of the co-management stakeholders, and/or other opportunities for discussion of experiences and learning.
- Represent the fishery in discussions with other sectors about planning issues.

D. Possible follow-up options?

Following the pilot project, and depending on the success of the co-management units:

- Continue co-management in the pilot project units, using local funding and minimal Diskan support, as requested, and for annual discussion meetings between the members of the co-management units and the catchment-level stakeholders.
- Extend the approach into other villages near to the initial co-management units to increase production in the initial 'sub-catchment' area.
- Extend the approach into *new areas*, to increase production and promote sustainable development in other parts of the catchment.
- In the longer term (and for Indonesia as a whole), consider the development of a new catchment-based Environment Agency responsible for the integrated management of natural resource issues. Such a system may already exist within Bappeda, or KSDA, but probably with a provincial framework instead of the necessary *catchment* framework.
- Also in the future, and depending on the success of these approaches, promote the development of a more 'enabling' and 'empowering' policy environment, promoting local participation in the management of fisheries and other natural resources. Such legislation may be incorporated into the new rules for Regional Autonomy?

Annex 3b. Suggestions for a Pilot Project Proposal, South Sumatra Province

A. Aims and Objectives

- To introduce 'co-management' practices into two or three auction units in South Sumatra
- To establish improved management regulations designed to sustain fish stocks and improve fishing incomes and 'livelihoods'.
- To develop skills and capacity for improved management of natural resources both in Government offices and at village level
- To investigate the costs and benefits of these approaches and the possibilities of extension into other auction units in South Sumatra and other provinces.

B. Expected benefits of the proposed co-management approach

The above activities would provide the following potential benefits for South Sumatra province:

- The introduction of reserves or other management tools in the co-management units (if designed according to the 'Guidelines') should increase *fish stocks* in local waters, and increase the *catch rates and income of local people*. In the CRIFI/Diskan/MRAG 'River Fisheries Reserves' project, fish stocks in villages with successful reserves in Kalimantan Barat were found to have fish stocks up to 20 times more abundant than those in villages without reserves. Catch rates in the village waters near the reserves were up to 10 times higher than in the villages without reserves. These differences are due to a range of ecological, physical and social factors in addition to the existence of the reserve, but provide some indication of possible effects. The pilot project sites could be encouraged to monitor their own costs and benefits using simple methods.
- Depending on local conditions and the design of reserves or other tools, the activities within the co-management units may also increase fish abundances (and resulting economic benefits) in *adjacent units, and other nearby areas*.
- Adoption of these approaches will provide a mechanism for the *sustainable development* of South Sumatra's river fisheries, thereby either increasing fishery incomes in the future or at least sustaining existing production.
- The collaboration between local people and government staff would increase *skills and capacity* for the management of fishery resources. The proposed approaches are designed to empower local people to manage their own resources.
- The activities would contribute to the *legal commitments* of each province under Undang Undang No. 22, 1999 on Otonomi Daerah; and the Wasdi Decree No. 996, 1999. These recent acts both emphasise the need for local participation in management and the orientation of benefits towards poorer community members.

C. Project Activities

Phase 1 - Selection of Project Sites (6 months?)

'Pre-select' about 10 *candidate* auction units which could be removed from the existing auction system for alternative management as **co-management units** (i.e. using the approaches below).

- Make this *initial selection* of possible units by discussions between catchment-level stakeholders (e.g. Diskan, Bappeda, KSDA, Balitbangda, LPTP), and using the selection criteria in the guidelines (see sections 2.1 & 3.1, and the illustrations given at the workshop).

Make a **final selection** of two or three of the above 10 units for initial development of co-management practices (e.g. as a pilot project) and decide **who will manage** these units:

- Decide how to select the units, and which ones to select by discussions with local people.
- For auction units where people are permanently settled in adjacent villages, *ask the villagers* if they wish to participate in the new management approach (see the ideas in the Guidelines - section 4.1).
- For auction units that do not have permanent settlements (at present), *auction* the right to settle in and manage that unit. In this case, the auction fee (or 'use-right' fee) should be paid to local government.
- Try both of the above approaches, to learn which approach works best?
- Do not force any villages or communities to co-operate.

Phase 2 - Establishing conditions and incentives for co-management (6 months?)

In each new 'co-management unit', hold discussions between the catchment and local stakeholders to agree on a set of **conditions** that will be followed in that unit, e.g.:

- The local community agree to develop a *management plan* for the fishery, including technical and institutional strategies for conservation, access rights, conflict resolution, enforcement etc (see the ideas in the Guidelines - section 4.3). Such a management plan should include harvest reserves, or other tools, *as selected by the community, and not forced on them 'top-down' by the catchment stakeholders*.
- The community agree to develop a simple *monitoring system* (of both inputs and outputs), that *they* will implement to provide feedback and learning on their actions (see ideas in Guidelines section 2.4 and 4.3).
- The community agree to *discuss* their management of the system, and their successes and failures with catchment stakeholders at least annually. If the community's management tools do not seem to be working, they should agree to consider alternative options.
- The catchment stakeholders agree to *support* the co-management unit as required and requested by the local people (e.g. by giving training, or support for rule enforcement or development of supporting legislation).
- Note that the conditions do not need to be exactly the same in each unit.

Also In each *unit*, hold discussions between the catchment and local-level stakeholders to agree on a set of **incentives** that will promote effective management in the unit, and their support by administrators, e.g.:

- The community has the *right to stay* in the co-management unit and be the local manager as long as it chooses to....
- on *condition* that the catchment stakeholders agree that the community is effectively managing the resource for the benefits of its people.
- If the community makes an initial payment to settle in the unit, but then decides not to stay, that community should have the *right to leave* the unit and to sell its use-rights to another alternative owner. In this case, the '*transfer fees*' should be paid back to the initial community, and not to government. (Note - this arrangement increases the perceived value of the unit to the managing community, and increases its incentive to manage it well)
- The community agrees to pay an annual '*use-right*' fee to the government, but at a *lower rate* than it would have paid under the previous auction system. The formula for calculating the use right fee should be discussed between the different stakeholders. For example, the fee could be set as 50% of the fee paid in the last auction year. The use right fee paid in future years could be allowed to rise at the standard rate of inflation, or to be a fixed percentage of the average of other local units etc. This arrangement compensates the community for the extra costs involved in their management of the unit (and the possible losses in the first year due to lost fishing opportunities in a reserve, if used). It also provides the government with *some* income from these units.
- Promote the initial support of the Bupati etc, by continuing the existing auction system and fund-raising in the other (non-co-management) units. In the long-term, if the units are successful, they should also provide further benefits to society by improving local fish stocks both within the co-management unit, and in other adjacent units.
- The community has the right to charge a fee for fishing to *raise income* for local development and pay for the costs of management.

At the catchment level, discuss options for developing a **monitoring programme**, to assess the

achievements in the different co-management units, and provide feedback on the most successful approaches (see the ideas in Sections 1.6, 2.4, 4.3 and 4.4 of the Guidelines). For example:

- The monitoring programme may include the data collected by the units for their own monitoring (probably quite simple data), and also include simple data from *other locations* for comparison. The comparisons should show whether the co-management units are providing better or worse results than in other nearby auction units (i.e. those that are not included in the co-management programme).
- The data from the monitoring programme could be *assessed annually*, at meetings of both the catchment and local-level stakeholders. Such meetings would provide an opportunity for the unit members from the different co-management units to get together and discuss their experiences. The costs of these meetings should be paid for by Dinas Perikanan (or by the pilot project in the initial years).
- The *feedback* from the monitoring programme should be used to *improve* the management in each unit. The units should thus take action based on the results, when appropriate, and not get stuck with fixed or inflexible management plans (i.e. use adaptive management).
- As described in Section 2.4 of the Guidelines, the assessment of each co-management unit should include both *technical inputs and outputs and also institutional criteria* (e.g. are the regulations being enforced? if not, why not?).

Also at the catchment level, discuss options for the development of an institutional structure for **integrated catchment management** to support the co-management units and provide advice and representation on external factors. For example:

- The structure could include representatives from kabupaten-level government offices within the '*sub-catchment area*' of the co-management units (e.g. Kabupaten OKI and OKU for the River Lempuing area).
- The structure could include representatives of *different government agencies* (agricultural, industrial, forestry, plantations, research and development, Bappeda etc) as required to represent the main impacts in the sub-catchment.
- The 'institutional structure' may either be (1) a *simple mechanism* for occasional contacts and discussions between agencies, as and when they are needed; or (2) a more *formal committee of representatives* from the different agencies that meets on a regular basis to discuss catchment development.
- In addition to meetings between stakeholders, channels may also be created for the flow of information between partners (including both feedback and new ideas for improving management).

Phase 3 - Implementation of co-management (2 years?)

Work with the communities in each co-management *unit* to initiate management practices in their local area. See the ideas for village-level 'key steps' in the Guidelines (Section 4.2), e.g.:

- Identify stakeholders, their local problems, objectives and possible solutions.
- Assess the fishery and consider management options (e.g. the use of harvest reserves or other tools).
- Develop an adaptive management plan (including both 'technical and insitutional' components, initial management tools and systems for monitoring, enforcement and adaptation).
- Implement the management plan. Provide legal basis and support as required.
- Publicise the objectives and scope of the plan, using meetings, leaflets, etc.
- Monitor the local fishery and consider local options for adaptation and improvement.
- Note that these activities are *mainly* carried out by the local people, but with some support, as *required* from catchment-level stakeholders.

At the sub-catchment level, provide support to the co-management units, e.g.:

- Study the outcomes of management in each of the units and provide feedback on their successes and failures and possibilities for improvements.
- Arrange annual meetings of the co-management stakeholders, and/or other opportunities for discussion of experiences and learning.

- Represent the fishery in discussions with other sectors about planning issues.

D. Possible follow-up options?

Following the pilot project, and depending on the success of the co-management units:

- Continue co-management in the pilot project units, using local funding and minimal Diskan support, as requested, and for annual discussion meetings between the members of the co-management units and the catchment-level stakeholders.
- Extend the approach into other units near to the initial co-management units to increase production in the initial 'sub-catchment' area.
- Extend the approach into *new areas*, to increase production and promote sustainable development in other parts of the catchment.
- In the longer term (and for Indonesia as a whole), consider the development of a new catchment-based Environment Agency responsible for the integrated management of natural resource issues. Such a system may already exist within Bappeda, or KSDA, but probably with a provincial framework instead of the necessary *catchment* framework.
- Also in the future, and depending on the success of these approaches, promote the development of a more 'enabling' and 'empowering' policy environment, promoting local participation in the management of fisheries and other natural resources. Such legislation may be incorporated into the new rules for Regional Autonomy?