WORKING PAPER

Developing a Capacity for Coastal Management 'Learning' at the Center for Marine Resources Studies, Bogor Agricultural University

A progress report prepared for the Coastal Resources Center, University of Rhode Island and Proyek Pesisir, Jl Jenderal Sudirman 9, Jakarta Selatan, Indonesia 10270

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PROYEK PESISIR
(Coastal Resources Management Project)
USAID/BAPPENAS NRM II PROGRAM

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AT THE CENTER FOR MARINE RESOURCES STUDIES,
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Further details of Proyek Pesisir publications can be found at www.pesisir.or.id
Further details of NRM Program publications can be found at www.nrm.or.id
Further details of Coastal Resources Center publications can be found at www.crc.uri.edu

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Developing a Capacity for Learning at IPB:
A Progress Report

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Introduction

This consultancy focused on four major activities:

❑ Developing a detailed workplan for the Learning Team for the balance of Year 4 and outlining a strategic directions for learning activities for Year 5 (Workplan Activity 6.2.2);

❑ Contributing to the development of research activities (via the Learning Team) that will support policy development (Activities 6.3.1 and 6.3.2);

❑ Initiating a review of global experience with decentralization of CRM (Activity 7.3.1);

❑ Contributing to the initial development of typology research activities (Activity 6.2.1).

Learning Team Activities for Year 4

Jim Tobey and I met with the Learning Team on August 2-3. I met with them again for three days the following week (August 8-10). During the two periods we discussed several topics related to Year 4 activities:

✓ Status of Year 3 documentation activities;

✓ Selection of documentation topics for Year 4;

✓ Development of draft outlines for papers to be shared with field staff;

✓ Development of a timetable for Year 4 report preparation and review.

Year 3 Documentation Activities. The team has produced the Year 3 report, *Pelajaran dari Pengalaman Proyek Pesisir, 1999-2000*. About 250 copies were produced for distribution (up from an initial run of 50 last year).

Selection of Topics for Year 4. Our discussion was a continuation of discussions we had last November and again in Makassar in May. We tentatively agreed on two topics:

▪ Co-management: The Evolution of Pilot Project Strategies for Collaborating with Government Agencies; and

▪ The Management Plan Development Process.

The co-management paper offers an opportunity to explore and document how each of the pilot projects forged working relationships with government officials at all levels. How did the projects encourage government participation? What strategies worked and what ones didn't? This sort of background information could be very useful to those developing new projects.

Describing the development of management plans at each of the pilot projects helps clarify planning assumptions, participation strategies and how management strategies were developed for each planning issue.

Learning Team members assume that they will develop the paper on co-management and the papers on the management planning process will be prepared by field staff under the guidance and support of LT members. This division of labor is consistent with field staff expectations identified in previous meetings.

Outlines for Papers. We brainstormed some research questions for each of the two papers. These questions will be reviewed again by the Learning Team and discussed with field staff.

Co-management: The Evolution of Pilot Project Strategies for Collaborating with Government Agencies*

1. What is co-management? What are its special challenges?

2. How did each project conceive of co-management?

3. How did projects decide which governmental partners to work with? Was it on the basis of coastal issues? Jurisdictional responsibilities? Organizational or personal capacities? Are projects working with NGOs, universities or other partners?

4. How did they approach potential partners? How did projects 'sell' or promote *Proyek Pesisir* activities? What steps did each project follow to develop partnerships?

5. How successful were initial contacts with government partners?

6. Were coordination mechanisms established? What were they? (e.g. coordinating groups? MoU?)

7. What expectations did project staff have about what government partners would contribute to the partnership? What expectations did government partners have? Were expectations met? Why or why not?

8. What are some examples of partnership activities?

9. What does experience to date suggest about the sorts of incentives, requirements or resources needed to encourage sustainable partnerships?

10. How have co-management relationships evolved through the project cycle?

11. How many people have been involved?

12. How much authority do government partners and other partners have?

13. What has the experience been with implementation to date?

* The self assessment manual, *A Manual for Assessing Progress in Coastal Management*, is both a source for additional questions for a rationale for these questions.

The Management Plan Development Process

1. Why was the management plan approach chosen? Were other alternatives considered? What were they?

2. Who was involved in the decision to do a management plan? How were government agency people involved, if at all? What special efforts were made to promote involvement of non-governmental stakeholders?

3. What resources were available to do the plan?

4. How does the management plan relate to other agency programs?

5. What was the strategy for identifying coastal issues or problems to be the focus for management?

6. What coastal issues were identified? How were they analyzed? By whom? In what forums? How were priorities among issues established? By whom? How consistent are the issues with the profiles developed at each site?

7. What key issues are to be the focus of the management plan?

8. What management actions were identified to respond to these issues? What agencies, NGOs or others were identified to implement actions? What management resource needs were identified?

9. What is the spatial scope of management? What is the time frame for management?

10. What management actions have been taken to carry out the plan so far?

11. To what extent do key agency officials understand the plan? Do they agree with the strategy?

12. What are the impacts of the management plan on other government activities? On the activities of NGOs or others?

13. Has a monitoring and evaluation strategy been developed? Who is responsible for monitoring and evaluation?

14. What is the strategy for disseminating monitoring and evaluation information?

Timetable for Year 4 Report Preparation. The Learning Time outlined a tentative timetable for report preparation.

Proposed Timetable for Year 4 LT Documentation Activities

Proposed Activity	Proposed Date
Communication of proposed topics to CoP, project field staff, et al	21/8/00
Send out draft research questions, proposed timetable and documentation guidelines prepared by LT	28/8/00
LT visits field sites to gather information for their report and to review documentation guidelines with field staff	10/00
PP field staff convene in Bogor to review their preliminary drafts with LT staff	13/11/00
First draft of reports due for LT review	4/12/00
LT staff review drafts, make suggestions and return to field staff	11/12/00
Field staff review proposed changes, make changes as needed and return to LT	22/12/00
LT edits papers and formats for circulation for internal workshop	8/1/01
LT distributes both field staff papers (on management plans) and LT paper (on co-management) to internal workshop participants	mid-February, 2001*
External Workshop (if convened)	?
Proceedings prepared, edited and formatted for publication	7/01
Proceedings distributed to government officials, NGO representatives, academics and other ICM project personnel	8/01

*The intention is to coordinate the internal workshop with another major *Proyek Pesisir* event if at all possible.

The Learning Team wants to coordinate the 2001 internal workshop with other national project events as a way of insuring full participation and economizing on costs. (The current plan is for the LT to bear the costs of the Bogor meeting of project staff. It is not currently clear who will bear the costs of the internal workshop).

Development of a Year Five LT Strategy

A second major activity for this visit outlined in the TOR is the identification of research activities to be undertaken by the LT to support national coastal management policy. The development of a research agenda is really part of a larger Year 5 strategy for the Learning Team. A Year 5 strategy includes a number of inter-related elements:

✓ Development of a national policy research agenda;

✓ Identification and development of alternative sources of funding for the LT;

✓ Development and implementation of an 'outreach' strategy; and

✓ Development of an 'in-reach' strategy within PKSPL.

Development of a national policy research agenda. The creation of a new marine management ministry under Sarwono, the prominence of Pak Rokhmin in the ministry and the emergence of new donor-funded coastal management initiatives have all contributed to the increased political visibility and importance of coastal management. Ian has been suggesting for some time that the Learning Team could enhance its own visibility and importance by greater attention to and participation in national coastal management issues. In addition, Pak Dietriech and Learning Team staff see an increased focus on national issues as a way to encourage research likely to result in publications in *Pesisir dan Lautan* or international coastal management journals.

With this context in mind, we spent one afternoon discussing a research agenda that could be shaped in year 4, but conducted in Year 5. Learning Team members first brainstormed a list of potential research topics and then, after some discussion and reflection, identified specific topics of greatest interest to them as individuals. Listed below are the topics. Individual expressions of interested are noted in parenthesis:

1. Implications of *Undang-Undang 22* for ICM (Fedi, Amir and Burhan)

2. Appropriate technical methods for community level coastal management (Nevi)

3. Involving communities in technical analysis for ICM (Nevi, Burhan)

4. Fisheries management in the context of Indonesian ICM (Fedi)

5. Methods for selecting sites for community level coastal management (Burhan, Amir, Bambang)

6. Implementing coastal management programs (Burhan, Amir, Bambang)

7. Gender roles in ICM

8. Pulau Seribu ICM project (Amir)

9. Coral bleaching and eco-tourism (Nevi)

10. Eco-tourism and ICM

11. Private supported community based coastal management (Fedi)

12. Protection of conservation areas by communities (Bambang)

13. Marine debris

14. Education in ICM (Fedi)

15. INCUNE

16. How successful is CB-ICM? (Nevi, Burhan)

17. Comparative Approaches to CB-ICM (Bambang)

18. Options for dealing with small islands in Indonesian marine policy (Nevi)

19. Option for kabupaten in implementing ICM (Fedi, Bambang, Amir)

20. Learning Team strategy (all)

21. Building local capacity for ICM (Nevi, Bambang)

22. Comparing *sasi* to modern CB-ICM.

As noted, these topics represent an initial identification of potential research topics. The final list will be shaped by research needs identified by specific agencies, suggestions from the newly-recruited Senior Policy Advisor (Maurice Knight), emerging 'hot topics', opportunities for funding and the personal interests of current Learning Team participants (or additional people encouraged to join the team).

While the research priorities are not yet obvious, it is clear that research---and publication in national and international journals---has a higher priority within PSKPL. Pak Dietriech mentioned the increasing importance of publication several times. Learning Team members also talked about their desire to do research for publication. In addition, a new German staff member, Dr. Harry Palm, is also encouraging PSKPL staff to engage in more research. He has offered to assist staff in proposal writing, research design and implementation. While he seems genuinely interested in supporting staff research, his own strongly expressed agenda is to encourage pure scientific rather than applied policy research. Those of us advising the Learning Team should not encourage either/or debates about which types of research are more important, relevant or career enhancing. We simply should remind Learning Team staff that there is a place for both types of research---and that they are in a unique position to contribute to national policy debates by doing some types of applied research related to their work over the last several years.

Alternative Sources of Funding for the Learning Team. Projected CRMP budget allocations for PKSPL indicate a substantial reduction for Year 5 and an eventual

project phase out. If the Learning Team is to continue its research activities at the current level of effort, it needs to seek alternative sources of funding. We discussed alternative sources of funding including other donor-funded coastal management projects. The proposal by Patrick Christie to seek funding from Packard Foundation for a project comparing community-level coastal management in the Philippines with Indonesia was discussed in detail. LT staff will be meeting with Dr. Christie in October to discuss this project.

LT staff decided that they might begin to seek outside funding by proposing to assist in an evaluation of an ICM project. Ibu Nevi talked to staff associated with a *Kehati*-funded coastal management project at *Pulau Seribu*. They indicated a desire for some type of evaluation. LT staff decided to propose to assist in some type of participatory evaluation.

With this potential evaluation project in mind, I briefly presented and discussed the evaluation process I use. I promised to forward a written description of the template (see Appendix 1).

They also asked for a description of what a proposal to a funding agency should look like. I presented an outline for a proposal. Using the evaluation and presentation template, they decided to develop and proposal for funding and to present it to *Kehati*.

Development of an Outreach Agenda. On Wednesday afternoon (9/8) and Thursday morning (10/8) the Learning Team discussed how to communicate the 'lessons' of coastal management most effectively. Maurice, Ibu Kun and Ibu Tina joined in the Thursday discussion.

Generally, developing an outreach strategy involves responding to several questions:

➢ Who are the key audiences to be reached?

➢ What is the goal of outreach?

➢ What is the essential message to be communicated?

➢ How are opportunities for reaching key audiences created most effectively?

➢ What are the most effective media for communicating project messages?

It was generally agreed that the key audiences for the LT are government agencies, NGOs, staff of other coastal management projects, and other academics and students. The general goal of LT outreach is to communicate the *Proyek Pesisir* community-level coastal management model---and the planning and management tools and tasks associated with that model.

Creating opportunities for outreach is one of the most problematic aspects of an outreach strategy. Ibu Kun has already outlined a general strategy for *Proyek Pesisir* within which LT activities need to fit. Maurice suggested an initial strategy of outreach to government agency staff. He indicated a willingness to take LT staff to key meetings with GOI counterparts. These meetings will commence within the next

few weeks. For the longer term, we agreed that the LT needs to identify national and regional conferences and workshops in which they can participate. We set a goal of at least two conferences or workshops during Year 4. We also agreed that the 'message' could be conveyed by a variety of media including slide shows, reports, academic papers, and informal meetings.

Developing an 'In-reach' Strategy. The sustainability of 'learning' activities within PKSPL is not just a function of continued external funding. It also depends, in large part, on how valuable it is seen by other faculty and administrative staff within the organization. To the extent that learning activities are seen as a valuable part of the organization's research and outreach agenda, it will be reflected in the institutional incentives of PKSPL, such as promotion criteria, salary increases, released time, etc.

Learning Team staff recognize that as long as their coastal management learning activities remain somewhat isolated from other PKSPL activities, there is a risk that they may be regarded as somewhat exclusive. In November of 1999, we discussed a series of possible initiatives designed to make the work of the Learning Team more visible within PKSPL---and to encourage other PKSPL to engage in similar learning activities. Specifically, we discussed the potential usefulness of initiating a seminar series focusing on learning activities, initiating a working paper series, designing workshops, and revising courses to reflect learning activities. All these activities could be undertaken both to inform other faculty within PKSPL about what the Learning Team has been doing and to encourage other faculty to participate in learning activities.

While there was broad agreement within the team of the desirability of a broader 'in-reach' agenda, no commitments to specific activities or timetables were made.

Global Experiences with Decentralization

As part of its current *reformasi* agenda, Indonesia has initiated a process of de-centralization from central administration and management. The outlines of the de-centralization strategy are manifest in two new laws in particular: Law No. 22 on regional government and Law No. 25 on fiscal balance between the central governments and the regions.

To date, much of the decentralization discussion has focused on fiscal issues, specifically on how taxes, resource use fees and other revenues will be re-distributed among levels of government and among provinces. This emphasis is particularly evident in donor-sponsored reports such as *Decentralization in Indonesia: Prospects and Problems* by James Alm and Roy Bahl.

In contrast, the proposed focus of my report is on administrative decentralization. I plan to examine the decentralization experiences of four or five countries. The report will focus on the specific issues in administrative decentralization and how these issues have been addressed in particular coastal management programs. A preliminary outline of the paper is included in Appendix 2.

Coastal Typology Research Activities

I spent a portion of my time talking with Jim about his 'typology' project and reviewing his preliminary draft. My comments here reflect some of our discussions.

The primary purpose of the proposed typology of coastal management contexts, as I understand it, is to provide guidance to donor organizations and others seeking to make investments in coastal management. The underlying idea is to identify the 'types' of management contexts in which investments are most likely to be 'successful'.

The idea of a typology is appealing. It suggests that a great many variables having to do with types of coastal issues, coastal morphological characteristics, government capacity, political, social and economic conditions etc. could be combined into a few key coastal 'types'. Hence, a typology is an abstraction of what is sometimes is a very complex reality.

In practice, typologies are useful abstractions to the extent that there is consensus about:

✓ The relevance of the variables from which they are constructed;

✓ The ways in which variables in which are combined to construct 'types';

✓ The degree to which the resulting 'types' summarize or abstract information in ways that are regarded as valid.

In reviewing the initial draft of Jim's paper, I do think he has focused on the key variables: <u>opportunities</u> (resource conditions and trends, emerging treats, and importance of coastal resources to quality of life); <u>capacities</u> (local leadership and willingness to act, public support, tradition of community cooperation, stability of local government, stability of local government, and supporting structures of local government) and <u>complexity</u> (use conflicts, scope of change, do-ability, stability of the policy environment, number of institutions and stakeholder groups, and certainty of solution).

Even if there is consensus that these are the most important variables---and I think a persuasive case can be made---it is very difficult to combine these variables to construct a few key types. Part of the difficulty is that the individual attributes of opportunities, capacity and complexity are not easily combined in a single index. For example, each of the individual attributes of capacity (e.g. local leadership and willingness to act, public support, etc.) could be rated on a 1-10 or 1-5 scale. But trying to combine these scales into one global index of capacity that is applicable across regions and countries abstracts too much. Too much information about individual situations is lost in such combinations.

Even if we take great liberties and rate each of the three variables on a three-point scale (e.g. high, medium, low), the resulting three by three matrix of 'types' is not likely to be regarded as valid. The resulting types don't convey sufficient information about the contexts they purport to reflect. They simply abstract too much information.

It is, however, quite possible to use the variables as criteria for assessing and ranking potential coastal management sites, such as communities. Using them as criteria allows for individual or group comparative assessments. Consider, for example, the matrix below:

Comparative Assessment of Coastal Communities in Province X

Criteria	Site 1	Site 2	Site 3	Site 4	Site 5
Opportunity					
• Conditions of coastal resources					
• Urgency of threats					
Capacity					
• Local leadership					
• Public support					
• Tradition of community cooperation					
• Stability of local government					
• Supporting structures for ICM					
Complexity					
• Use conflicts					
• Scope of change					
• Do-ability					
• Stability of policy environment					
• Number of institutions and stakeholder groups					
• Certainty of solution					

There are a variety of ways to use such a matrix in comparing alternatives and setting priorities, a few of which are briefly described below:

1. **Data collection on sites**. First, key stakeholders can be asked to fill in each cell with descriptive situation. What are the use conflicts at each site, for example? How supportive is the public at each site? This descriptive information makes comparison easier.

2. **Simple ranking**. Working with key stakeholders, community groups or others, each of the criteria can be explained to the group. Then each respondent may be asked to rate each site in terms of each criterion on a 1-10 or 1-5 point scale. Even rating sites on a high, medium and low scale may help to sort sites. Scores are then tallied and priorities established.

3. **Weighted ranking**. Some of the criteria can be weighted more heavily. Scores for that criterion can then by multiplied by the weight of the criterion. (Who establishes such weights and how they are set is obviously an issue).

4. **Lexicographic ordering**. Priorities among the criteria can be established. For example, it might be determined that 'opportunity' or 'threat' is the most important criterion. All sites can be compared and ranked in terms of this criterion only. Then the top two (or so) sites might be compared in terms of the other criteria.

5. **"King of the Hill" Comparisons**. This technique involves asking individual or groups to compare two sites at a time. The 'winner' of the comparison is compared to a third site and so forth until the top priority site. Such an approach asks participants to think of all criteria simultaneously in making a judgment.

There are, of course, more sophisticated approaches to using such matrices, but these examples do give a flavor of how explicit criteria can be used to solicit detailed information and to make difficult judgments.

Appendix 1: A Template for Program or Project Evaluation

Kem Lowry

Evaluation involves several different tasks. The basic tasks or elements in organizing an evaluation are fairly easy to describe, but applying them to a specific project or program is more difficult. Inherent in each of the steps is a number of practical research choices the evaluator must make. The basic steps are:

- Determining the clients for the evaluation and their purposes or goals
- Identifying the program or project
- Specifying the project or program logic or theory
- Establishing the evaluation questions
- Identifying the forms and sources of evidence that will be used
- Determining what comparisons will be made (research design)
- Strategies for increasing validity (credibility, trustworthiness) of findings
- Establishing a dissemination strategy.

Each of these tasks is described below.

1. Determining the clients for the evaluation and their purposes and goals.

The 'client' for the evaluation is usually the person or agency who has commissioned the study. However, there are others who may be very interested in the program or project or who may be affected by the results of the study. I try to find out all the potential 'stakeholders' when I'm framing the study. I want to know who they are and what their interests are. For example, if the state legislature asks me to evaluate the cost-effectiveness of a job training program for unemployed youth, I want to think about whether I should expand the study beyond the legislature's interests (efficiency, cost-effectiveness) to include concerns of former and future program clients. Their concerns might include relevance of the curriculum, satisfaction with curriculum and faculty, etc. I also try to find out how the evaluation will be used. Are clients considering expanding the program? Terminating it? Changing it in some way? How do they hope to use the results? The more I know about who the clients are and what their information needs are, the more effective I am likely to be in designing a study that will meet their needs.

Recommended reading: Weiss, Carol. 1998. "Purposes of Evaluation." **Evaluation** (2nd ed.). New York: Prentice Hall.

2. Identifying the program or project goals

One of my first tasks is to read all I can about the project (or program). How was it developed? By whom? What problems was it supposed to address? What are the 'official' program goals as reflected in program documents? Have other goals become important as the program was implemented? Do staff see other goals as important? This task usually can be accomplished through lots of reading and interviews with program managers and staff.

3. What is the program 'logic' or 'theory'?

Projects (and programs) are based on assumptions about how program activities (e.g. training, counseling, building latrines, forming organizational networks) will result in desired outcomes (e.g. better trained teachers, improved sanitary conditions in communities, etc.). These assumptions may be explicitly set forth in program documents, but sometimes these assumptions are implicit and unarticulated. In these circumstances, the evaluator has to interview staff and observe the program to identify and map the basic program assumptions about how the project fosters change. (Sometimes the evaluator finds that staff have different conceptions of the 'logic' of the program. Under these conditions the evaluator has to work with staff to establish which 'logic' is correct---or test all the different program 'theories').

One of the major purposes of evaluation is to examine the validity of these assumptions about how the program works. Some projects may require minimal testing of program theory or logic. For example, the relationship between the correct installation of sanitary latrines and improved hygienic conditions is well established. Evaluation is not needed to test this 'theory'. However, if the project requires the collaboration of several agencies, the participation of local residents in siting, building or maintaining latrines, it may be important to determine what the incentives are to encourage participation and whether those incentives are sufficient as part of the examination of program logic.

Identification of program logic is also important to assess how well the program is being implemented. Finding deviations from planned activities is not necessarily wrong or bad. Indeed a better understanding of community conditions may justify changes in planned activities. However, designing an evaluation in ways that allow for assessment of whether and how activities are being carried out can often help identify program problem and issues that need to be corrected.

Recommended reading: Weiss, Carol. 1998. "Understanding the Program". **Evaluation** (2nd ed.). New York: Prentice Hall.

4. What evaluative questions will the evaluation seek to answer?

The evaluative questions contain the criteria that are used to assess program 'success'. Usually there are several evaluative questions to be answered. For a drug treatment program, for example, one might want to know:

- To what extent is the program being implemented as designed? How do staff account for deviations from planned design, if any? (program benchmarks)
- What was the cost per client? (efficiency)
- How do client costs compare to other programs? (comparative efficiency)
- How effective was the program in reducing recidivism (i.e. continued drug use)? (effectiveness)
- How satisfied were clients with the treatment program? (client satisfaction)
- What proportion of total clients has access to this program? (Adequacy of performance)

These evaluation questions are the general questions to be answered in the evaluation. Of course, for each such general question there may be multiple specific questions.

Good evaluative questions have at least three important properties:

- They are empirical questions (i.e. they cannot be answered with a 'yes' or 'no').
- They are questions that clients, staff and other stakeholders care about.
- They address the intended goals or purposes of the evaluation.

Evaluation questions come from a variety of sources. Some questions may be obvious from the mandate to do the evaluation. Others may be suggested in the course of discussions with staff and others or from published or unpublished research on the topic. It is useful to compile the questions and re-phrase them as empirical questions. I find it useful to circulate the questions among all stakeholders to insure that these are indeed the questions they want answered. (Even 'though I am careful to do this, I often find that when the research begins, I receive requests from program managers to modify some questions or add or delete others. There is no firm rule on how to deal with such requests. Sometimes they can be easily accommodated. Each has to be negotiated on a case-by-case basis. However, if I receive requests to change questions in ways that would substantially modify the study or undermine its integrity I can withdraw as the evaluator. I recognize that withdrawing, or threatening to do so, is a luxury not open to all evaluators.)

Recommended reading: Weiss, Carol. 1998. "Planning the Evaluation." **Evaluation** (2nd ed.). New York: Prentice Hall.

### 5.	Identifying the forms and sources of evidence to be used.

The next step is to identify the types of evidence likely to be most persuasive in answering the evaluative questions. There are (at least) three related issues. What types of information are most valid (in both a substantive and statistical sense)? What types of information are available or can be generated cost-effectively? What types of information will be most persuasive for the people using the evaluation to make decisions? Although these issues are sometimes posed in terms of quantitative vs. qualitative research approaches, the evidence issues are really more complex.

In a quantitative approach to evaluation, we choose empirical indicators to represent more complex concepts. For example, just as we use kilograms to represent the concept of 'weight' or measurements of blood pressure, height, weight, body temperature and other indicators to represent 'human health', in similar fashion we look for empirical indicators that can represent 'program effectiveness' or 'adequacy of program performance'. For example, in a micro-credit program for women, what does 'success' mean? For some, an indicator that focuses on 'repayment rate' might be sufficient. 'Satisfaction of women in the program' as measured through careful surveys or interviews might be another possible indicator. 'Increases in economic autonomy' of women as revealed through surveys or interviews is another possible indicator. An ideal study might include all three such measures---and more.

In the real world of social research there are rarely enough resources to answer all the questions or to focus on the most revealing indicators. Difficult trade-offs have to be made that sometimes leave us with indicators of dubious validity. For example,

lacking data on health conditions, particularly gastro-intestinal health, in areas where sanitary latrines have been constructed, we use a surrogate output indicator, number of latrines installed, as a substitute. While the number of latrines installed tells us SOMETHING of use, it is an inadequate indicator for purposes of assessing program success.

Developing persuasive and useful evidence may also involve using qualitative data: depth interviews, detailed observations and careful scrutiny of program records. Detailed cases describing program implementation processes, rich descriptions of the situation of particular women receiving loans from a micro-credit program can be very valuable in conveying a sense of process and context. Quantitative indicators are frequently an efficient way to summarize what happened in a program. Qualitative information is useful in conveying why or how things happened---or didn't happen.

One of the standard objections to qualitative information is that it is 'invalid'. Those who claim qualitative information is invalid are usually using 'validity' in a narrow, statistical sense: too few cases are examined to generalize, the cases that are chosen may not be representative of larger trends, etc. This ignores what for me is a larger point: The purpose of 'representative' samples is to make generalization possible. The purpose of detailed, qualitative analysis of individual cases is to generate insights. These are different research purposes.

I find both types of information useful, but providing detailed qualitative information to someone uninterested in process issues may be a waste of resources. The evaluator has to keep in mind the issue of who will use the study, how it will be used and the costs of additional data and analysis.

Recommended reading: Weiss, Carol. 1998. "Developing Measures" and "Qualitative Methods." **Evaluation** (2nd ed.). New York: Prentice Hall.

6. What comparisons will be made?

All evaluation involves comparison. Most such comparisons are explicit, but sometimes they are implicit. Conditions after the program has been implemented are compared to how they were before. The health of children receiving experimental dietary supplements is compared to those not receiving the treatment. The construction of new sanitary latrines is compared to implicit or explicit engineering standards.

The purpose of all such comparisons is to try to make a persuasive case that observed changes in the 'treatment' group are the result of the program and not impacts that would have occurred anyway. The optimal comparison is the experiment in which neither the researcher nor the client knows who the 'treatment' group really is. (In the early days of polio vaccination in the U.S there was insufficient vaccine, but neither the medical personnel administering the vaccine nor the children knew who didn't get the vaccine.) In most research situations, experiments are not possible, so other designs, such as after-only with control group, before-after, time-series, and other designs are used. An argument can even be made for the case study as an appropriate research design in some instances.

The looser the design, the more difficult it is to argue that the program has 'caused' the changes one observes. My general rule is: The greater the costs of being wrong when you make judgments based on your analysis, the more important it is to use a more robust design. That is to say, being wrong about the effectiveness of a training course is USUALLY less costly (in terms of human risks) than being wrong about, say, the effectiveness of some new heart valve replacement procedure.

Recommended reading: Weiss, Carol. 1998. "Design of the Evaluation." **Evaluation** (2nd ed.). New York: Prentice Hall.

7.   How can you increase the validity of your findings?

I use a variety of strategies to strengthen confidence in my findings. One is to review the evidence with valued colleagues and have them assess it carefully. Another is to review all my research procedures with colleagues (a chain of evidence and reasoning approach) and ask them to make comments and suggestions.

Recommended reading: Lincoln, Yvonna S. and Egon G. Guba. 1985. "Establishing Trustworthiness." **Naturalistic Inquiry**. Newbury Park: Sage.

8.   What is the research dissemination strategy?

This is sometimes a simple issue in the sense that the client exercises proprietary rights over the research product. They may not want you to share your findings or analysis. I almost always argue that results should be broadly disseminated both in order to get feedback on the quality of the study and so that I can be faithful to those I promised to show the research in exchange for their cooperation in preparing it.

Recommended reading: Weiss, Carol. 1998. "Writing the Report and Disseminating the Results." **Evaluation** (2nd ed.). New York: Prentice Hall.

Appendix II: A Preliminary Outline of the Decentralization Study

I see the project as having five main elements:

❑ Identification of primary decentralization themes to be examined;
❑ Assembly and review of literature on key themes;
❑ Assembly of coastal management case material;
❑ Application of thematic framework to selected cases in coastal management;
❑ Identification of key findings; and
❑ Distribution of review to key specialists for review and comment.

1.   Key Themes

Decentralization in natural resource management is used in a variety of ways, but generally it refers to efforts to delegate, devolve or reallocate planning and/or management responsibilities from central or provincial governments to sub-provincial or local units of government.

Decentralization is most frequently promoted as a means to:

▪ Encourage local 'tailoring' of management initiatives;
▪ Insure better information about local conditions;
▪ Promote greater administrative efficiency;
▪ Provide for greater participation of those affected by policies and programs;
▪ Increase local governmental capacity;
▪ Encourage local political support;
▪ Promote better coordination; and
▪ Insure better information about policy outcomes, thus allowing for more efficient adjustment.

The central purpose of this review is to identify and explore key factors that affect the successful implementation of decentralized coastal management programs. Generally, there are six clusters of factors shaping successful implementation: The complexity of delegated or decentralized tasks; the organizational arrangements for management; adequacy of management resources and technical capacity factors; inter-organizational relationships, political support; and types and quality of administrative oversight.

Briefly outlined below are representative questions to be explored.

a. Task Complexity

✓ What coastal management tasks are delegated or decentralized?
✓ How technically complex are these tasks? What experience do sub-national units have in engaging in such tasks?
✓ What sorts of technical analysis by sub-national units are required?
✓ How much administrative discretion do sub-national units exercise? How do proposed delegation efforts change the types of administrative discretion usually exercised by such units?

✓ To what extent does the political and administrative culture support and encourage local adaptation of national policies and programs?

b. Organizational arrangements

✓ What are the organizational arrangements for decentralized management? Have regional offices of national agencies been used? Local governments? Special purpose organizations? What other organizational arrangements?
✓ What are the relationships between decentralized agencies and national or provincial agencies?
✓ What is the history of interaction, if any, between central and local agencies responsible for implementation? How have they changed over time?

c. Administrative resources and technical capacity

✓ To what extent do sub-national units have the fiscal resources needed to plan or manage, including the resources to make field visits, commission or conduct special studies or process numerous applications?
✓ To what extent do sub-national units have access to technical resource people such as marine biologists or coastal engineers needed for effective management?
✓ What provisions have been made to provide additional resources and access to technical expertise?
✓ What, if anything, have sub-national units done to cope with resource or expertise 'deficits'?

d. Inter-organizational relationships

✓ To what extent are national policy objectives and intentions for sub-national units clear and consistent? To what extent do they provide adequate guidance for implementation?
✓ To what extent does the allocation of management functions align with organizational resources and technical capacities?
✓ To what extent are planning, budgeting and implementation procedures standardized? Do they allow for local variation and adaptation?
✓ What arrangements have been made to facilitate timely and accurate inter-organizational communication?
✓ What arrangements have been made or are anticipated to facilitate coordination of activities?
✓ What other factors shape inter-organizational relationships?

e. Political support

✓ To what extent do local elected and administrative officials understand the aims of decentralization?
✓ To what extent do high level administrative officials support decentralization? Do field staff support it? Local officials? Leaders of local interest groups?
✓ What factors influence the degree of political support?
✓ How has political support affected implementation?

e. Types and quality of administrative oversight

- ✓ How do national officials exercise oversight over local administration? What sorts of monitoring and evaluation efforts do they undertake?
- ✓ How important is national oversight in insuring effective local administration? How effective is it?
- ✓ What incentives (or forms of coercion) do they use to encourage local compliance with national policy?

2.   Literature Review

This list is meant to be illustrative of the types of questions to be asked. A comprehensive literature review will reveal additional variables and result in a more refined list of questions. I have just hired a student to begin a review of relevant published and unpublished literature on public administration, public policy, institutional economics and coastal management.

3.   Identification of Cases

Ian has suggested focusing on a few key cases: Philippines, USA, Malaysia and South Africa. (In the US, there are multiple models. The basic state-federal arrangements outlined in the CZMA represent just one model. There are also a variety of state-local models that might be explored). I have basic information about the U.S. and South Africa, but less about the Philippines and Malaysia.

4.   Application of Themes to Cases

My intention is to first develop the conceptual framework and to flesh it out in some detail. I plan to circulate the framework among a CRMP 'advisory group'. Once I've gather comments on the framework and revised it as necessary, I plan to use it to organize the cases. The cases will be organized thematically.

5   Identification of Key Findings

I am not yet sure how key findings will be organized. Which variables/factors are most important in insuring effective decentralization is highly dependent on the particular political, administrative, economic and environmental factors in particular countries. Since the core question is what the implications are for decentralization in Indonesia, it might be useful to consider using the report as the basis for a workshop in which key Indonesian and foreign observers identify how the findings apply to a decentralized coastal management program in Indonesia.