Working Paper 14

Best Practices and Knowledge Sharing in Watershed Management in the Lower Mekong Basin

Lessons, Prospects and a Way Forward

Consultancy Report
prepared by

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Contents   Page

Appendices

List of Figures, Tables and Text Boxes

Acronyms

AFN	Asia Forest Network
APFC	Asia Pacific Forestry Commission
AIFP	Agriculture, Irrigation and Forestry Programme
CBNRM	Community based Natural Resource Management
CIFOR	International Center for Forestry Research
CF	Community Forestry
CFM	Community Forest Management
CoP	Community of Practice
Danida	Danish International Development Agency
EWC	East West Center
FAO	Food and Agriculture Organization of the United Nations
FMLG	Forest Management Learning Group
FTP	Forests, Trees and People
GTZ	Gesellschaft fuer Technische Zusammenarbeit
ICRAF	World Agroforestry Center
IIRR	International Institute for Rural Reconstruction
IUCN	World Conservation Union
LMB	Lower Mekong Basin
LA	Land allocation
LUP	Land use planning
MRC	Mekong Rover Commission
MARD	Ministry of Agriculture and Rural Development (Vietnam)
M&E	Monitoring and Evaluation
MLI	Mekong Learning Initiative
NGO	Non Governmental Organization
NRM	Natural Resource Management
NUFFIC	Netherlands University Foundation For International Cooperation
OECD	Organization for Economic Cooperation and Development
PWC	PriceWaterhouseCooper
R&D	Research and Development
RECOFTC	Regional Community Forestry Training Center for Asia and the Pacific
RRA	Rapid Rural Appraisal
SEARCA	South East Asia Research Center in Agriculture
SD SFDP	Song Da Social Forestry Development Project
SFM	Sustainable Forest Management
SIDA	Swedish International Development Agency
TAO	Tambon Administrative Organization
UNESCO	United Nations Education, Science, and Culture Organization
WRI	World Resources Institute
WSM	Watershed Management
WSMC	Watershed Management Component

Foreword

The assignment was carried out over 20 days in the period from October to December, 2004. The main task was to assist in the design of the MRC-GTZ Watershed Management Component's plans to collect and disseminate best practices in watershed management and related fields. In view of the multitude of approaches to collect and disseminate best practices, successful examples were to be identified. The lessons from these examples would then be the basis for the recommendation of suitable approaches to be considered by the project.

Initially a fairly straightforward approach was envisaged, with a focus on analysis and documentation of well known examples, so as to identify what works and what not, and recommend 'best processes for best practices'.

Review of the booming literature on good and best practices, information management, knowledge management and organizational learning, lead to the preliminary conclusion that a focus on 'collection and dissemination of best practices' could only be effective under rather restrictive conditions of process and organizational complexity.

Review of project working papers and discussions with MRC staff demonstrated that the envisaged watershed management process, is very much perceived as an emergent process, i.e., as a process under construction with the involvement of a variety of stakeholders and organizations, operating under a range of conditions.

The project working papers also provided a range of interesting and grounded ideas on the nature of the emergent watershed management process, and linkages to decentralization and other changes occurring in the LMB. Thus more time than envisaged needed to be allocated for the analysis of the project assessments and other initiatives in the region, so as to define the contours of a likely watershed management process in more detail.

The shift from practice to process development was compounded by another shift based on relevant lessons from private, public and development sector experiences: the need to shift the focus from practices to knowledge.

These twists and turns during the course of the investigation are reflected in the report and in its findings, conclusions and recommendations.

Other, more practical iterations are required to put the ideas presented here into action. That may require contributions from a range of more knowledgeable people than this author. In accordance with the main lesson learned in this exercise: practices cannot be better than the knowledge from which they are derived….

Cor Veer

Executive Summary

The collection and dissemination of best practices in watershed management are proposed as an important strategy in the MRC WSMC: experiences with watershed management approaches are to be documented and shared, best practices for guidelines and policies to be identified and shared, priority issues and ways to deal with those, to be shared regionally and to form the basis for regional capacity building. All of this supported by a range of activities in information and knowledge management.

Thus the project is faced with questions such as WHAT practices are we collecting (and WHY), HOW should the collection, sharing and use be organized and WHO should all be involved in that (and in what capacity), and particularly, does it make sense to focus on practices in watershed management ?

We have attempted to generate some answers to these questions by looking at:

1. Lessons from best practice approaches and knowledge management in the private, public and development sector.

The three main lessons that are derived from this review are:

❖ the need to put the best practices approach in the context of organizational change or learning. This implies a.o., that practices are perceived as part of clearly articulated 'business processes'. It also implies that the commitment to learning and change needs to expressed through addressing improvements in these processes, and in concern about quality of products and services, as well as other aspects of the organization. Thus best practices are to be 'used' as part of much broader strategy to change in organizational performance. This broader perspective is to be maintained so as to prevent the collection of best practices, without any use.

❖ the second lesson refers to the shift from 'practice' to 'knowledge'. This does not mean that practices (good, best or bad) are irrelevant, but that they are to be seen as expressions of the knowledge that generates them. The practical implications of this shift is that 'different levels of knowledge' can be distinguished. This allows us to recognize that much what is documented as 'best practice' is at the 'know how' level, which may be adequate for some purposes. But the other levels of knowledge ('know what and why') and particularly knowledge in its social context, enabling e.g., the understanding of different perspectives of stakeholders in watershed management, need to be appreciated as well. This may enable us to better target the type of knowledge that should have priority at this stage of watershed management in the region. Another implication from this shift is the recognition of the importance of 'tacit' knowledge and the implications for the knowledge management strategy in complex situations and problems. Mobilization of expert knowledge is required in these situations, rather than just information system based or derived knowledge.

❖ These lessons are summarized in the form of an Integrated Knowledge Management Model, in which the 'technical' and 'human' elements of knowledge management are integrated. It is suggested to use and build on this model for the further development of WSMC's knowledge management strategy in watershed management.

2. Lessons from sharing best practices in natural resource management in Asia.

- ❖ The review demonstrates a range of approaches, with some focusing on sharing of best practices, and some others on the generation and sharing of new knowledge. All of these approaches have their use, and their limitations. The first cases presented demonstrate that at the level of 'know how and who' information systems may be most useful and cost effective ways of 'sharing practices, and profiles of practitioners and experts'. Getting at the 'know what and why' requires more resources in terms of analytical frameworks and in the documentation of the cases. For the next 'level up' (know how, what, why and care why, i.e. socially contextualized knowledge) a much more intensive learning and development process appears to be required. It is here that we find examples of watershed management approaches that are promising for broader application. Or, in terms of our knowledge model, it is in this category, that we can find the knowledge leaders in watershed management. It is also here that successful examples of the effectiveness of mobilizing expert based knowledge in watershed management can be found.

- ❖ Another lesson from the review is that there are many relevant initiatives, both at regional and national level, and that there seems to be limited interaction amongst or synergy from these initiatives. It is suggested to consider the creation of such synergy as one of the possible objectives of WSMC's knowledge management activities.

3. Implications for regional watershed knowledge management.

- ❖ In applying the lessons from the two reviews to regional watershed knowledge management, the present state of the various elements of WSMC's knowledge management strategy is assessed from the perspective of the integrated knowledge management model presented earlier.

- ❖ It is found that the WSMC project working papers have contributed much to the 'mapping' of the knowledge landscape in the region. Particularly the state of process development in domains such as land use planning and community forestry is progressing well in all 4 countries. As reviews in Cambodia and Lao PDR demonstrate the real challenges are at the level of 'area based planning/integrated watershed management'. It is also found that interesting examples and initiatives are underway in all countries (also as part of the decentralization) that could contribute to and benefit from knowledge management and sharing.

- ❖ The development of other elements of the knowledge management model, such as the MekongInfo system and national working groups has also been initiated. These could form a good basis for their further development in line with the development of the proposed knowledge system.

- ❖ Finally and in line with the earlier suggested need for synergy, it is proposed to explore interest from other, like minded regional and national organizations working in knowledge management, to collaborate in the development of the proposed 'integrated regional watershed knowledge system'.

1. Background and Context

The purpose of the consultancy reported here, was "to compile, document and assess existing approaches to collect and disseminate best practices in the field of Natural Resources Management, and to recommend on approaches suitable for watershed management within the MRC context"[1].

In the following, the MRC and WSMC context is introduced.

1.1. The Mekong River Commission & Watershed Management

The Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin between the Governments of Cambodia, Lao PDR, Thailand and Vietnam is the basis for the formation of the Mekong River Commission (MRC) and the Mekong River Commission's Secretariat (MRCS).

The MRC is governed by a council from each participating state, setting policy and meeting at least once a year. A joint committee comprising heads of government departments meets at least twice a year, and is responsible for the implementation of policies and decisions made by the council (MRC, 2003)

This committee also supervises the secretariat, and its technical and administrative services.

Four divisions are responsible for the secretariat's technical services:
- the natural resources planning division – for the basin development plan,
- the environment division for environmental impact and water quality,
- the technical support division for modeling, GIS, and flood warning,
- the operations division for agriculture, irrigation and forestry (AIFP), fisheries, navigation, and water resources

The water utilization program reports directly to the director of the Secretariat.

The Watershed Management Component (WSMC) is an MRC GTZ cooperation program, linked to MRC though AIFP and to various GTZ programs and sponsored initiatives within and outside the basin.

The component has its own watershed management country offices in the four countries, facilitating amongst other activities, national watershed management working groups. The initiation and implementation of pilot activities in selected watersheds in the four countries are one of the responsibilities of these working groups. The collection, analysis and documentation of 'best practices' in watershed management is another responsibility of these groups.

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[1] For the full text of the terms of reference, from which this quote is taken, see appendix 1.

The summary of WSMC outputs and activities illustrates the importance of best practices, knowledge management and networking activities in the project strategy:

Table 1. WSMC Outputs and Activities

Outputs	1. WSM approaches documented and disseminated	2. Analyses and development of national policies	3. Effective regional collaboration	**4. Information and knowledge management**
Activities	Support appraisal and select target areas	Identify stakeholders in national policies and guidelines	Regional coordination committee	Needs assessment for data and information
	NRM planning at district & province	**National wgs on best practices**	National interests and priorities	Coordinate KM with other MRC programs
	Financing mechanisms	Nat. wgs on inventory of nat. policies and guidelines	**Regional sharing on priority issues**	Generate missing data
	"Systemization' of experiences and sharing	Documentation and publication of results	Regional capacity on priority issues	Generate standards and sharing
	Local, sub-national and national networks			Public access
	Training at local and national level			Capacity of partners and info for policy dialogue

1.2. WSMC's Assessment of the State of Watershed Management in the Lower Mekong   Basin

Country status reports formed the basis for a policy dialogue held in September 2004. The country status reports assessed the state of play in watershed management in Cambodia, Lao PDR, Thailand and Vietnam according to the 7 watershed management change processes identified based on earlier work (Min Bunnara, et.al. 2004):

- enabling regulations, comprising national policies, planning procedures, institutional responsibilities, arrangements for financing, coordination mechanisms,
- institutional framework: involving different sectors and levels,
- planning procedures: levels, sectors and cycles,
- impact monitoring: on river basin development, up- and downstream interactions, poverty, sustainability, trans boundary issues,
- mechanisms for financing: government budgets, markets, compensation mechanisms
- capacity building, through research, training and extension,
- implementation: land management, agriculture, forestry, infrastructure, water management, and conservation practices.

The assessment found that the main obstacles for implementation of the envisaged watershed management concept are in the institutional framework, planning procedures and capacity building. Though shortcomings in national laws and regulations are also mentioned, it seems that there is enough of an enabling framework in place, to allow for the implementation of watershed management approaches. There is also a range of implementation experiences in various participatory natural resource management initiatives, and in all countries decentralization initiatives are being implemented. In all of these there is, however, another element in which the assessment sees a need for better practices: i.e. the monitoring of the impact of upstream changes on down stream activities and systems.

The assessment of the country WSM status, appears to be predicated on a 'policy and planning model' , in which the generation of innovations is a task performed "by policy analysts, while line bureaucrats oppose innovation as they defend their traditional standard operating procedures" (Cohen and Eimicke, 1996).
In the thematic studies, the focus is different. In these studies, experiences from field experimentation with new ideas in national and local planning systems, and with

community based natural resource management initiatives, are documented. In terms of the earlier quoted authors, the perspective in these studies appears more exploratory or in line with 'the groping along model'. In this model, it is recognized that "we cannot know ahead of time what the results from our ideas will be, because the complexities of the real world cannot be anticipated and because ideas divorced from rich operational experience are so general that they are likely to be systematically wrong. Because we cannot know the results of our ideas, we need to try them in action and learn from experience; based on that learning we may need to modify not only our actions but also the policy idea and the original objectives" (Cohen and Eimicke, op.cit.)

The themes 'related to watershed management' covered in these studies include:
- ❖ Relevant policy and legislation (Oberndorf, 2004),
- ❖ Integrated or area-based planning, (Poppe, 2004)
- ❖ Land use planning and land allocation, (Rock, 2004)
- ❖ Community forestry, (Braeutigam, 2003)
- ❖ Training strategies (De Boer, 2003)

The main findings demonstrate the challenges the WSMC is facing: a wide range of issues, options and opportunities is presented in each of these studies. Though there may be some overlap as in area-based planning, PLUP/LA, and CF, to support development of meaningful innovations in each of these thematic areas would require considerable resources. Also, the studies demonstrate that a range of projects and programmes are already active in generating, documenting and even sharing innovations, in each of these areas.

For the WSMC project, this raises questions with regard to its role in supporting further development in these areas. And possibly of others that remain to be identified, such as criteria and indicators for sustainable land management systems, land policy assessment and development, sustainable agriculture/farming systems, fair trade and/or certification schemes, etc.

The project may need to strike a balance between programmatic interventions initiated by the WSMC itself and information and knowledge management and sharing activities, building on initiatives and lessons from other actors. To put it in very simple terms: is the WMSC going to be more of a program, with its own projects, or more of a facilitator of a knowledge network ?

In the following, we shall focus on the networking aspects of WSMC, guided by some key questions, distilled from the project's working papers.

1.3. Key Questions

In view of the central place of 'best practices' in the project's strategy and the author's terms of reference, the overall guiding question is how and to what extent a best practice approach could assist to promote WSM approaches in the region.

Related to that, there are three more specific issues or questions to be addressed:

a. Thematic or process 'focus' questions: what practices in what processes could or should be the target;
b. Implementation or strategy questions: how could change processes towards better watershed management be effectively supported by WSMC,
c. Organizational questions: depending on the decisions on focus and approach, what –categories or types of- organizations should be involved in the management and sharing of best practices and knowledge .

In the following we'll try to find answers to these questions, by briefly reviewing lessons from best practice approaches and knowledge management in the private, public and development sector. Followed by a review of best practice and networking experiences in natural resource management in Asia.

On the basis of these lessons and review of project and other documents on the state and direction of watershed management development in LMB, we present some ideas on possible knowledge management and sharing strategies.

2. Best Practices and the Management of Change

The eruption of best practice approaches in the business, public and development sector, must be understood as one aspect of a wider process of change and/or 'organizational learning' (Allen, 1998, HBR, 2001)

In the business sector, market forces drive this change process, in the public sector changes in the role and nature of government and governance.

Organizations try to manage the change process through a repertoire of planning and action processes, typically comprising –from the general to the specific-:

a. The assessment of the changes in the organization's environment, the implications for its mission (purpose and strategies), and for the way it organizes itself is addressed through strategic planning exercises,
b. The changes in its production and management process is done by one type of business process re-engineering or another,
c. To improve the satisfaction of its customers or clients, the quality of its products and services (TQM) is improved,
d. And as part of these processes, the organization's performance as compared to others in the sector is assessed or measured, through benchmarking and comparison with best practice organizations,
e. These best practices are then to be adapted and adopted through an action plan and …. , particularly through the implementation of such action,
f. And then the process repeats itself, enabling the organization to survive in a dynamic environment, poised at the edge of stability and chaos.

This implies that targeting best practices as the 'entry point' for change is bound to fail, unless the other parts of the overall process (strategic plan, process change, quality management, and benchmarking) are in place as well. And those processes won't be triggered unless the organization's environment creates pressure on the organization to change, and unless the organization has the willingness and ability to change.

In the following we will try to clarify these points. First the required articulation or specification of the 'business process' will be discussed, then the role of benchmarking, with a specific emphasis on the public sector. In addition to lessons from best practices and knowledge management in the private and public sector, lessons from the development sector are presented. These point at a shift in emphasis from knowledge management to knowledge sharing. Knowledge networks or communities of practice are seen by many knowledge management practitioners as the most promising way forward. In the integrated knowledge management model presented in the final section of this chapter, such communities or networks are included as one of the elements, but other elements (including processes and practices) are also part of this model. We propose to adapt this model for watershed management purposes and use it as a guide for future activities in watershed knowledge management.

2.1. Process Classification and Best Practices

An example from the private sector (PWC, 2004), may illustrate the level of specificity required to assess ('benchmark') one' s own processes and identify good, better or best practices' in the business sector.

Fig. 1. PWCs Process Classification for Global Best Practices

1.0 Understand markets and customers

    <u>1.1 Determine customer needs and wants</u>

        1.1.1 Capture and assess customer feedback

        1.1.2 Predict customer purchasing behavior

    <u>1.2 Measure customer satisfaction</u>

        1.2.1 Monitor satisfaction with products and services

        1.2.2 Monitor satisfaction with problem resolution

        1.2.3 Monitor satisfaction with communication

    <u>1.3 Monitor changes in market or customer expectations</u>

        1.3.1 Determine deficiency of products and services

        1.3.2 Identify innovations that meet customers needs and wants

        1.3.3 Monitor competitive offerings
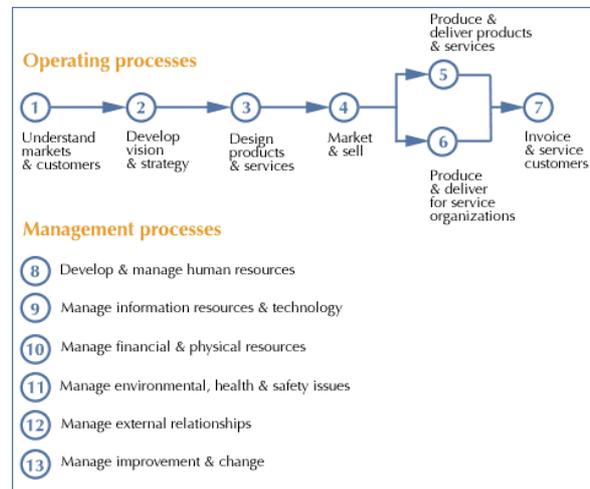
The 7 operating and 6 management processes are broken down at least two more levels so as to enable the specification of how (with what practices) things are done.

Assuming that the example of the first process illustrated here is more or less representative of the other processes, one would end up with 100-120 sub-processes for the identification and organization (e.g. of storage-repositories) of best practices. Assume 5 for each and the best practice database/repository would contain 500-600 practices…

One challenge is the design of the classification scheme: the enterprise taxonomy or even better: ontology (or beating that according to some authors: the topic map)[2].

Another issue is that the example is –deliberately selected- from a consultancy firm, advising clients on best practices.

It is important to realize that usually such advise is part of a wider process in which members of the organization/company are actively involved in the assessment of their own processes and in the selection of 'best practice partners'.

These benchmarking processes are not confined to the private sector, but are increasingly common and encouraged in the public sector (see e.g. for Canada, Treasury Board of Canada Secretariat, 2004)

2.2. Benchmarking: Practices, Processes and/or Results

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[2] Taxonomy refers to a controlled vocabulary (consisting of terms for concepts) arranged in a hierarchy. In an ontology a set of types, properties and relationships is constructed with an 'open' vocabulary, in such a manner that the model resembles the real world. Topic maps are part of an ontology framework for information retrieval (see Garshol, 2004).

Good, better or best practices, processes or results only make sense in comparison to those from 'comparable others'.
There are numerous definitions of benchmarking, but essentially it involves learning, sharing information and adopting good, better or best practices to bring about changes in performance.

Box 1. Generic steps to benchmarking:

1. identify management practice, work process or result to be improved,
2. analyze your practice, flowchart process or identify result indicators,
3. measure your own performance,
4. identify benchmarking partners,
5. determine data collection method,
6. collect data,
7. determine performance gap,
8. project future performance,
9. develop action plan,
10. implement action plan,
11. monitor results
12. recalibrate benchmarks

Source: Treasury Board of Canada , 2004

The steps in the box illustrate that –in principle- the process is quite straightforward.

In practice there are indications that, just as with 'best practices', benchmarking can easily turn into its own purpose, with increasingly sophisticated performance measures, so that the process does get in the way of the learning objectives for which it was designed[3].

Different types of benchmarking can be distinguished depending on the type of performance assessed, the degree to which the environment of the organization is assessed and the source of best practices (in other part of same organization, external to the organization, or international).
.
One could view the thematic project studies earlier referred to as 'benchmarking' with the important difference that representatives from the organizations concerned were only nominally involved (as informants), or not at all.

Involving personnel from key line agencies in some types[4] of benchmarking exercises could be considered as a potential strategy for any 'exchange', or networking type of effort.

For projects actively involved in and committed to improved performance in community forestry, land use planning or watershed management, other types of benchmarking may be more relevant[5].
2.2.1. Lessons from planned change in public sector organizations

Change in bureaucracies is often perceived as somewhat of an oxymoron:
Bureaucracies were created to provide stable 'preformed' decisions to specific

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[3] See e.g.: "In short, while the quantitative benchmarking element of the Lisbon process has – in the hands of the national authorities – been crude but at least visible, the good practice/peer review element has hardly got going at all. The work of Beep should be seen as a corrective to this imbalance. It gives primacy to the careful identification of good practice, as a key component of policy learning. Benchmarking is not rejected as potentially a key component (provided sufficient resources are devoted to indicator development and data collection in order that the benchmarks can be seen as valid and reliable), but this is for Beep a secondary concern". (Millard, 2003).

[4] **Framework Conditions Benchmarking** focuses on improving the external environment in which firms operate; **Sectoral Benchmarking** focuses on the competitive challenges that firms encounter within specific sectors and involves working with partners from the industries concerned
[5] **Performance Benchmarking:** when organisations consider their positions in relation to performance characteristics of key products and services. Benchmarking partners are drawn from the same sector.
 Process Benchmarking: when the focus is on improving specific critical processes and operations. Benchmarking partners are sought from best practice organisations that perform similar work or deliver similar services. Process benchmarking invariably involves producing **process maps** to facilitate comparison and analysis. This type of benchmarking can result in benefits in the short term.

('sectoral') relatively stable phenomena and stimuli. Public management innovation is rarely characterized by revolutionary breakthroughs, and typically involves rearranging old practices in new ways.

Rational analysis of options (earlier referred to as 'policy planning model') before implementation seems to be less useful in organizational learning than evaluations of programs already underway (referred to as 'groping along model').

Many of the trends leading to public sector change in OECD countries, are also emerging in the LMB. Decentralization, improvements in regulatory environment and involvement of other agencies (NGOs and 'projects') in service delivery are some of the trends emerging from the WSMC's working papers. However, to what extent these changes in the environment are leading to a willingness and ability to change in the case of the line agencies concerned, depends on many other factors as well. Innovation is a survival strategy for profit organizations, but for public sector organizations the drivers for change are less clear cut.

Customer or market interests may not drive innovation as in the private sector, as it is usually much more difficult to define who the customer is. Then the penalties for taking risk and failing are usually higher than the rewards for taking risk and succeeding.

> Box 2: Trends in public sector change in OECD countries in the 90s:
>
> - decentralization
> - re examination of role of government
> -downsizing
> -more cost effective ways of service delivery
> - explicit quality standards for customer satisfaction
> -simplifying regulation and reducing costs
> - benchmarking and measuring performance
>
> Source: Shergold, 1996

In terms of process change , planning, operational and reporting requirements may be set in legislation and be highly specified and leave little room for change. Finally the accountability is not always clear, different 'owners' may have different understanding of what constitutes high performance (Macpherson, 2001).

Testing the willingness and ability to change could well be worth a try with some of the leading line agencies, and particularly those that are involved in change. E.g., the stated intention to develop a national community forestry program in Cambodia, could be an entry point. Another approach could be to draw and document lessons learned from attempts to introduce administrative reform in MARD, Vietnam.

> Box 3: The 10 steps in Self Assessment a la Baldrige:
>
> 1. identify the boundaries of the organization
> 2. select seven 'champions', one for each criteria of excellence
> 3. decide on format and scope of self assessment and action plan
> 4. senior leaders and champions prepare organizational profile
> 5. practice self assessment with champions
> 6. select category teams; prepare response for assigned items
> 7. share response; identify key strengths and gaps by category
> 8. prioritize key strengths and opportunities for improvement
> 9. develop and implement an action plan for improvement
> 10. evaluate and improve your self assessment and action process
>
> Source: Baldrige, 2004

The Baldrige National Quality Program's Guide to Self Assessment and Action could be considered as a starting point, that could be readily adapted to the process at hand.

As indicated for the case of Vietnam and Cambodia, this type of efforts in the NRM sector have been initiated and some others may be planned.

This implies that WSMC may not need to initiate such processes by itself or even less on its own.

Collaboration with such initiatives, networking and gathering of lessons learned may be important, to assess the likelihood of change in key agencies. The type of change that is conducive to support watershed management development as defined earlier.

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The lessons from benchmarking experiences in both the private and public sector do point at the importance of sharing experiences, lessons, practices, with the active involvement or rather, driven by the people who have to live with the changes.

Lessons from knowledge management in the development sector point in the same direction.

2.3. From Knowledge Management to Knowledge Sharing

In the preparation for the evaluation of the World (Knowledge) Bank's knowledge management program, the evaluation team distilled 5 key lessons from the knowledge management literature:

- there is a shift from the view of knowledge as an entity, independent of context and people that can be moved about and manipulated for organizational advantage, to knowledge sharing. Moving away from an emphasis on building knowledge (or information) repositories to integrating knowledge into core business processes,

- successful transfer of knowledge requires active, extended learning rather than simple communication processes,

- the transition from knowledge sharing tools and processes towards actually embedding knowledge into those processes needs to be planned,

- the existence of different types of 'communities of practice' needs to be recognized; all need to demonstrate value and be accountable,

- effective knowledge sharing programs need to include processes for assuring quality, freshness and relevance of distributed knowledge (requiring processes for content assessment, content aggregation and content maintenance).

Applying these insights in the evaluation, the mission was overall very positive about the quality and effectiveness of the "Knowledge Bank's" activities. But with one major exception: the integration of knowledge in the World Bank's 'core business processes' had not been very successful (Gwin, 2003).
Other lessons from the evolution of knowledge management also demonstrate the importance of this link with change, organizational learning, and the need to view knowledge management in relation to enhancement of an organization's capacity to more effectively accomplish its mission, improve its competitive edge, deliver better results, and cope more effectively with change.

How knowledge is to be leveraged, stored, shared and used also depends on the nature of the environment that the organization operates in. The more turbulent and complex the environment, the less the organization can rely on 'routine and structured information processing', and the more it needs to rely on people based knowledge management (Malhotra, 2004; Barclay, n.d.; Bellinger, 2004).

The importance of the organizational dimension is also demonstrated in the spectacular failure rate of information system development activities. In the early 90s US companies invested more than $ 250 billion[6] per year in IS projects, with only 16 % of those considered successful. This investment had quadrupled in 2000, but its success rate was still only 28 %. The main reason for failure was organizational,

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[6] Caveat: this figure is taken from one source only and has not been cross checked with other sources !

meaning insufficient support from top management and end users (Weidong and Lee, 2004).

2.3. Lessons from Knowledge Networks or Communities of Practice

Active, extended learning is the 'core business' of knowledge networks. But also here, no magic bullets. Some networks do succeed in achieving their objectives, at least for some time, and many others don't.

One challenge for networks is to craft a niche that is well placed on the intersection between needed knowledge in a specific (and pertinent !) thematic area and the specific strengths of the network members. The need for focus is often in contradiction with the wide range of diverse interest of network participants (Egger, 2004).

But there are other balancing acts that are challenging such as the need to restrict membership on the one hand and the need to remain open for others as well. Also in terms of perspectives there is a need to strike a balance between established perspectives and new ones, as the network otherwise will stew in its own juice.

The foundation of networks is mutual trust (or 'relational social capital') and face to face interactions may be required to build and maintain that. Particularly for international networks this may be problematic, in view of distances and cost.

But beyond these challenges and balancing acts, there are also lessons that can be used as guidelines for network development, governance and management/ facilitation with some degree of confidence.

The first one is the identification and maintenance of the niche and more particularly the need to identify one or few practical tasks in that.

Further all networks have some core elements: they provide well defined services to their members, they provide good opportunities for learning together, they provide opportunities for advocacy, that is for incorporation of their concerns into policy, and they have some form of management unit or support.

Successful networks ensure the pertinence of their activities through regular scrutiny, debate and adaptation. They 'market' their network services and products actively. They ensure that added value is produced, and that the necessary focus and specialization for that is maintained (ICCO, 2004).

They have a mechanism for governance that is transparent, representative and non-hierarchical in its mode of operations.

Another characteristic of successful networks is vitality (or liveliness) maintained amongst others through face to face interaction according to some rhythm.

And then there are the networking tools, usually comprising a range of different media for sharing, and there are mechanisms for M&E or measurement of performance and adjustment.

Finally, the real challenge is to put all these general principles into practice.

2.4. Preliminary Conclusions

Though the above are only pointers (and not conclusive proof), the main lesson that we have learned from our admittedly superficial scan of a wide field is that there is a great risk in focusing too much on 'best practices', information and knowledge management as separate activities.

The lesson seems to be that we need to maintain a focus on 'the practitioners' and derive practices, lessons, information and knowledge activities from such 'communities of practice' or 'knowledge networks'.

In the earlier discussion on the thematic or process focus, some initial pointers were provided as to possible applications of benchmarking approaches by key actors working within this focus area. Further elaboration of the operating processes may be required, and an internal assessment and identification of the specific aspects to be improved, needs to precede the comparison with best practices. As discussed later[7], there are already examples of people doing this –without following the benchmarking protocols to the letter-, and it may well be that WSMC's role could be to assist others in design and implementation of bench marking processes. Also recommendations 4 (learn and share together) and 9 (thorough preparation of exchange visits) from the project working paper on training (De Boer, 2003), could be related to more deliberately designed approaches to benchmarking.

There is then still a need to ensure that the benchmarking and best practices are part of a real commitment to organizational change.

Particularly with regard to public sector organizations (such as line agencies and local government units) this may require collaboration with bilateral projects, INGOs, NGOs and/or universities, both for the selection of the right partners and for the follow up activities.

If this direction were pursued lessons from the experiences with knowledge networks or communities of practice should be taken into account.

But the main conclusion seems to be that there are many elements and perspectives that are intermingled, and creating confusion as to what should be the focus: practice, information, or knowledge, and how these are related.

2.5. Recapitulation: Concepts, Lessons and Implications

Knowledge and Practice

One way of summarizing our lessons is to go back to basics, review the dictionary definitions of knowledge and practice, and building on these, provide some additional ideas on best practices and knowledge management. This may also helps us to make the transition from practices to knowledge management implied in the foregoing, more explicit.

One instructive definition of practice is "translating an idea into action"; as in "a hard theory to put into practice"; whereas knowledge is defined as "the psychological result of perception and learning and reasoning".

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[7] In the example of the Song Da Social Forestry project to be presented later, adoption of their approach to community forestry development by some others, as in the case of the SNV supported project in Hue, did pursue this type of benchmarking approach.

Or phrasing it differently: if knowledge is the capacity for effective action, then good practice is the effective action, and best practice is the most effective action in a certain -well defined- domain.

This may help to explain the risk in pursuing a naieve approach to collecting and sharing 'best practices', particularly in complex, ill defined or rapidly changing systems and conditions. In such cases, enhanced capacity for action may be more important than enhanced access to best practices.

Best Practices Sharing

"Best Practices Sharing involves the capture, dissemination and sharing of a work method, process, or initiative to improve organizational effectiveness, service delivery and employee satisfaction. Federal government departments, agencies, and Crown corporations have a long history of defining needs, measuring performance, adapting and sharing best practices to ensure quality service. This legacy of informally benchmarking a management practice, process or service, and then applying a best practice, is a foundation to build upon to promote a wider sharing of best practices, and to apply formal benchmarking leading to the major improvements needed to meet present challenges" (Treasury Board of Canada Secretariat, 2004).

Also in this quote the emphasis in the best practices sharing is on the 'major improvements needed to meet present challenges'.

Historically and with the benefit of hindsight, work in the 1970s on diffusion of innovations (by Everett M. Rogers) and innovations in management by Drucker and many others need to be recognized as precursors of the eruption of best practice approaches in the 1990s.

Capturing 'best practices' requires analysis and documentation, usually in the form of case studies[8], as will also be demonstrated in the next section when we review the lessons from NRM networks.

Comparing the case study method with other research techniques may illustrate its characteristics. There is a continuum of research methods ranging from techniques which deal in a shallow way with large number of cases and draw on a narrow range of disciplinary knowledge, focusing on a few features of each case, to the case study method dealing with one or a few cases, drawing on a wide range of disciplinary knowledge to analyze complex systems in depth (Crosthwaite et. al. 1997).

Case studies are not representative in a statistical sense, but can be used to generalize to theory. Focus should be on what the case is about and unearthing its key processes. The issue is whether we start to understand processes that also operate elsewhere in spite of the difference in context that may occur[9] (Crosthwaite, op.cit.)

For various reasons the best practice and information sharing approaches were superseded (or embedded !) during the 1990s into what is now known as 'knowledge management'.

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[8] "The case study method is a method of learning about a complex instance, based on a comprehensive understanding of that instance obtained by extensive description and analysis of the instance taken as a whole and in its context". This means "learning virtually everything about the instance being studied, including how it operates and what it does in relation to the contextual events that it is part of" (GAO/ PEMD, 2004).

[9] For a much quoted handbook for case study research see Yin, 1993, and for practitioners see Marschke and Braakman, 2004.

Knowledge Management[10]

The emergence of knowledge management is attributed to the 'discovery' of the knowledge economy, in which knowledge is the source of wealth. Others see its emergence as a logical progression beyond information management, with a far bigger impact on organizational performance than 'just' information management. And then one could also perceive knowledge management as the culmination and integration of many earlier organizational development ideas (organizational learning, process reengineering, total quality management, etc.).

The knowledge-based economy requires understanding, adapting to and proactively changing the rules of the game and the game itself.

The early 'discoverers' of the knowledge-based economy in the 80s, used the terms information economy and knowledge economy interchangeably. Nowadays the differences are emphasized, and it is acknowledged that there are different types and levels of knowledge (Baker and Badamshina, op.cit.).

Building on what was stated earlier on knowledge and practice, levels of knowledge can be distinguished according to its 'distance to action', from practical level –applied-knowledge to more theoretical levels that may not –yet- have much relation to action.

Another way to construct a hierarchy of knowledge may also help us to clarify the practices and processes issues we discussed earlier:

know how >> know what (or who) >> know why >> care why.

'Know how' refers to knowledge of how to do things; 'know what' to cognitive knowledge, going beyond basic skills to a higher level of a problem area; 'know why' requires a deeper understanding of interrelationships across knowledge areas; and 'care why' requires socially contextualized knowledge, such as understanding relevant values and their salience for different stakeholder groups. It is this level of understanding that provides the basis for negotiation and conflict resolution that can inform collective decision making and action.

As we'll discuss later, these levels have important implications for differentiating the different practices in e.g. watershed management or natural resource management related activities. It appear at first sight that all levels may need to be addressed, and/or that addressing know how, what and why issues may lead to little if nobody can be found who cares why.

Another important set of categories is the distinction between tacit (between the ears) knowledge and explicit knowledge (expressed in artifacts). Thus the essence of knowledge creation can be captured in four conversion processes: from tacit to tacit (socialization); from tacit to explicit (externalization), from explicit to tacit (internalization) and from explicit to explicit (combination). In knowledge management the interactions between tacit and explicit knowledge are particularly important. Tapping into tacit knowledge generates explicit knowledge, and better explicit knowledge generates higher level tacit knowledge.

The term knowledge management was first introduced in a 1986 conference on management in Europe. A survey in the US held in 2000, of 200 senior executives found that 80 % of them had some knowledge management initiative underway.

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[10] Most of this section is adapted from Baker and Badamshina, 2004.

Common knowledge management practices include:

- ❖ Creating and improving knowledge artifacts and repositories
- ❖ Capturing and structuring tacit knowledge ('networking')
- ❖ Improving knowledge creation and knowledge flows
- ❖ Enhancing knowledge management culture and infrastructure
- ❖ Managing knowledge as an asset (including mapping the knowledge landscape)
- ❖ Improving intelligence and data mining strategies and technologies.

With special emphasis on:

-knowledge communities, communities of practice and knowledge discourse; CoPs focus on some specific set of work practices, and knowledge networks on creating and sharing more generic knowledge that may have some potential future application and utility.
- knowledge networks are partnerships between highly knowledge oriented organizations,
- knowledge landscapes: maps of relevant knowledge domains and their relative importance.

Based on these practices an integrated knowledge management model can be constructed, comprising:

Box 4. The Integrated Knowledge Management Model

Knowledge System Vision and Strategy	Knowledge Goals, Objectives, Priorities Transformation Plan (as is now >> as will be in future) Articulated Knowledge Landscape (mapping, visualization, analyses)	
Knowledge System Infrastructure and Technologies	Knowledge Measurement & Assessment Information Technology Artificial Intelligence Communication Technology	Knowledge Leaders/Advocates/ Activists/Facilitators
Processes, Mechanisms and incentives to capture, share and create knowledge	Explicit Knowledge – Assets/ Resources (information and knowledge systems, databases, information products) Competitive Intelligence Benchmarking	Tacit Knowledge – Assets/ Resources (staff recruitment, development, interactions, relationships) Communities of Practice Knowledge Communities Knowledge Networks
Utilizing/leveraging knowledge	Intra-Inter- Organizational Competencies R&D & Innovation Initiatives/Programs/Projects (idea solicitation, selection, prioritization, and implementation processes) Knowledge Management Outcomes (smart processes, knowledge infused products and services, creative business concepts, critical knowledge systems, work systems/networks embedded within knowledge systems.	

It is these tangible components of knowledge management that give rise to the important intangible attributes (level, range, and depth of tacit knowledge, individual competencies, organizational competencies, etc.).

The human elements of the system provide critical feedback opportunities.

In the development of knowledge management, a progression of different stages can be discerned:

a. smart processes: improving processes through lessons learned, best practices, process innovation, getting the right information to the right people at the right time, etc.,
b. knowledge infused products and services: with an emphasis on R&D,
c. innovative business concepts: changing the rules of the game and of the game itself,
d. constructing critical knowledge systems and embedding work systems within knowledge systems: identification of what knowledge systems are critical to the various work systems, and construction of these knowledge systems so that they enhance processes and decision making activities. This will lead to knowledge partnerships and knowledge system coalitions. And these inter-organizational knowledge systems will need to be managed and led.

One of the entry points (as also indicated in the foregoing sections) is to encourage people to develop and participate in knowledge communities. Leaders and managers need to facilitate the development of these knowledge communities to the point that a knowledge landscape begins to form, knowledge gaps are identified, and priorities are established.

In this it is important that the transformation plan be made explicit and that it be supported and sustained by the relevant leaders.

Implications

In the following sections we will also build on the concepts and ideas presented in this section, both for the analysis of the lessons from other networks and for the assessment and identification of future knowledge management activities in watershed management.

3. Lessons from NRM Best Practices and Networks in Asia

"The network paradigm is a seductive vision to solve all ills in one go: connect all the involved actors with networks. With such linkages, activities could be coordinated, knowledge could be shared, best practices could be exchanged, and common standards and procedures developed. Many have succumbed to this alluring vision and countless networks exist in the development sector" (Egger, 2004).

3.1. Sharing Best Practices in NRM

The selection of examples of NRM best practices was based on an initial assessment of 'prominent' efforts in capturing and sharing best NRM practices that both this author and WSMC were aware of at the time of designing this assignment.

In appendix 6, examples of other NRM initiatives in LMB are presented, some of which have pursued approaches different from the ones presented in this section. The selection of cases briefly described here is therefore neither comprehensive nor representative of the full range of approaches pursued in the region.

The main difference in the cases presented is in the degree to which the outcomes presented have been part of a longer term process of active and extended learning, involving both the 'disseminator' and the 'collector'.

In the first two cases presented (UNESCO and InterSard), the emphasis is on the sharing of 'best practices and processes', that have already been developed without involvement of the disseminators.

The case of FAO, represents an intermediate category. The development of the identified 'excellent forest management regimes' was not part of an FAO process, (as in the cases of InterSard and UNESCO). But considerable efforts were made in the identification of cases, the development of criteria of excellence, and the preparation of the case studies.

Also the 'processes' documented were usually more complex than the ones shared through InterSard and UNESCO.

The greater intensity of effort in the FAO case also means that it is more of a one-off project approach to share 'best practices/processes', whereas in the first two cases the sharing is designed as a continuous process.

The two cases presented next are both examples in which active and extended learning by the generators of the practices or processes is an integral part of the knowledge creation and sharing.

In the example from FTP in Asia, the focus was to develop a smart process, knowledge infused products, and the tacit knowledge of participants.

The Asia Forest Network pursues a similar strategy but with a wider focus, greater attention to –policy- context, and a wider range of support strategies, including 'national' working groups. Also the active and extended learning is one of the main objectives and achievements.

According to the terms introduced earlier, AFN would most resemble a knowledge network, whereas the FTP in Asia group developing the forest management learning group process and materials, may represent a knowledge community.

The three cases presented last (CIFOR, ICRAF, SD SFDP), are all examples of efforts focusing on the development of smart processes, and/or knowledge based products and services, as well as (in the case of CIFOR) generating and sharing 'lessons learned'.

In terms of knowledge levels it appears that in the first three cases presented, the main focus is on the know-how (and some of the what and who, the latter particularly in the case of WISARD), whereas in the last four cases the 'know and care why' aspects of knowledge are also addressed.

Though not all are very specific as to their audience, the paraphrased quote from UNESCO would most likely be appropriate for most other cases: "the aim is to encourage researchers and policy makers to incorporate indigenous knowledge (or sustainable NRM practices, or lessons from excellent forest management, or FMLGs, or CFM, or SFM, or science based watershed management, or CF) in their project proposals, feasibility studies, implementation plans and project assessments and to take relevant knowledge and practices into account in all activities affecting local communities".

With the possible exception of the FMLG example (in which field practitioners were the main audience), program and project implementers, administrators and 'policy makers' are all recognized as the critical parts of the audience in the sharing of NRM practices.

3.2. Best Practice Sharing – Know How, What and/or Who

3.2.1. UNESCO

Unesco's gathering and sharing of best practices covers a wide range of themes:
- human settlements (including: poverty eradication, social inclusion, urban governance and gender)
- indigenous knowledge
- immigration services
- and links to 15 other sites presenting best practices in a range of topics.

As indicated in the indigenous knowledge site, the aim is to encourage researchers and policy makers to incorporate indigenous knowledge in their project proposals, feasibility studies, implementation plans and project assessments and to take indigenous knowledge and practices into account in all activities affecting local communities. This database is maintained by NUFFIC and they screen the questionnaires that are sent in, and enter the information into the database if 'approved'.

There are also more intensive, concentrated exercises in the other themes, as demonstrated by the example below for best practices in promoting gender equity:

In looking at best practices, the approach draws on the available empirical evidence, and considers everything that is relevant to coming up with effective strategies in promoting women's economic empowerment through Science and Technology. This will require identifying women's experiences in science and technology initiatives based on the core criteria set for this project and drawing out the lessons so as to derive a how to guide for Science and Technology project implementation and policy/programme recommendations that will respond to the issues that were identified. A set of questions (Annex JI) serve as a guide in analyzing the initiative as to its gender-responsiveness, environmental soundness, appropriateness, sustainability and other factors. The initiative will be subjected to these questions in order to determine if indeed it can be considered as a "best practice." The methodology and the structure of the documentation project is shown in below.

Fig. 2. UNESCO's Best Practice Documentation Guidelines

Step 1: Identify political and institutional context	Political and Institutional Context
	⇩
Step 2: Define objectives as a basis for measuring "success"	Objectives
	⇩
Step 3: Identify and examine best practice experience; establish what degree of success was achieved	Best Practice Experience
	⇩
	Degree of Success
	⇩
Step 3: Analyze and synthesize key issues which will lead directly to the recommendations for policies and programmes	Analysis
	⇩
Step 4: Draw lessons learned, develop How-To Guides and recommend policies and programmes	Lessons Learned / How-to Guide / Policy and Programme Recommendations
	⇩
Step 5: Develop a utilization and dissemination plan	Utilization/Dissemination

These guidelines also specify that the documentation is to be done by institutions from the countries/regions concerned.

This could obviously enhance the chance of achieving the objective of 'incorporating best practices' in future action.

As in the case of the Baldrige process earlier referred to, in the links to sites of best practices, examples are included where best practices are related to an award procedure. As there are examples of this in the region (see PTT in Thailand, for environmental management by communities) this idea could be included for further consideration.

3.2.1.1. Processes and practices

In the case of the indigenous knowledge practices, it seems that it is largely a matter of 'what you see is what you get': The gathering, 'systematization' and presentation of the practices, on the site (and in 2 hard copy publications) seems to be the main focus and process.

This approach may be quite efficient in terms of organizational inputs: though selection, editing and information system maintenance does require resources, the information production is done by others.

In Appendix 3, we have included a 'best practice' in building on indigenous knowledge and practices (from the Song Da Social Forestry Development Project) to illustrate the format.

The appendix may illustrate that even for purposes of learning how to apply the process presented, the information presented is not sufficient.

The purpose of the database is therefore more to inform people of the existence of documented processes and practices. These need to be consulted in case people would be interested to apply the process or set of practices in their own context.

It appears that the database is no longer actively developed and maintained.

And as the quote may demonstrate, it seems that UNESCO is now pursuing a more integrated knowledge management model in promoting indigenous knowledge[11]:

"Rural and indigenous peoples possess their own knowledge, practices and representations of the natural environment, as well as their own conceptions about how human interactions with nature should be managed.

The LINKS project builds dialogue amongst traditional knowledge holders, natural and social scientists, resource managers and decision-makers to enhance biodiversity conservation and secure an active and equitable role for local communities in resource governance. The survival of indigenous knowledge as a dynamic and vibrant resource within rural and indigenous communities depends upon its continuing transmission from generation to generation.

The LINKS project strengthens knowledge transmission between elders and youth, and explores pathways to balance community-based knowledge with global knowledge in formal and non-formal education.

Key modalities for LINKS action include:
- demonstration projects in collaboration with rural and indigenous communities
- action research on key concerns and issues
- information and communication technologies to record, manage and transmit indigenous knowledge and know-how
- training to build local capacities in relevant multimedia techniques
- international workshops and seminars to promote reflection and dialogue"

3.2.2. InterSard & WiSard

This is presented as an initiative to build a global network of southern and northern partners to share information on good practices and technologies for urban, peri-urban and rural development and sustainable management of natural resources through a web based information system.

It purports to be more than 'just' an electronic network. It was conceived as a global network of networks, both institutional and electronic, to serve as a forum for local and indigenous knowledge sharing and reuse.

Regional hubs for South East Asia are IIRR and SEARCA. National hubs have been identified in Cambodia, Vietnam and Lao PDR.

In addition, thematic hubs will be identified, (related to sustainable agriculture, natural resource management and participatory community development). These will focus on the exchange of information related to the specific theme, by making an inventory of key issues in that thematic area, moderate discussions, link with other best practices etc.

For data validation a two tiered approach is considered: central focal point for the technical validation (filling of required fields, formats) and local focal points for the content validation.

Complementary to InterSard, there is WISARD, a platform to share information on projects, organizations, experts and outputs.

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[11] Source: http://portal.unesco.org/sc_nat/ev.php?URL_ID=2031&URL_DO=DO_TOPIC&URL_SECTION=201)

3.2.2.1. Assessment

If web based information sharing in NRM or even watershed management were the question, building on WiSard and InterSard may be the answer, or at least part of the answer.

RECOFTC also has very relevant experience to share in that respect. Establishing linkages with these information systems was seriously explored in 2002. It was however decided to try to emulate the WISARD system, on a different platform, designed and managed by RECOFTC, so as to provide better linkages with RECOFTC's program management system. As the RECOFTC web site may demonstrate, that proved to be more challenging than we realized.

As in the failure of information systems earlier referred to for the US companies, also in our case, organizational issues contributed to the mixed success (according to some) or complete failure (in the eyes of others).

It is particularly in the organization of focal points and planning meetings etc., (the hidden part of the system) that the keys to success (WISARD/InterSard) or failure (RECOFTC) are to be found. (Neuman, et al., 2004; Witte, et al., 2004; White et al. 2004).

There are indicators that WiSard is widely used (see appendix 4 for details) :
= 3300 projects and 6000 organizations are registered in the database,
= since mid 1999, it has been visited 750 000 times,
= national focal points are in place in 27 countries
= there are 140 organizations or networks with their own focal points.

For the best practices database, presently containing 172 case descriptions of practices, the community forestry example included in the appendix illustrates the same issue as encountered in UNESCO IK example of the Song Da project. To learn from the example one would have to have access to other documentation, as the information provided can only describe what has been developed in very general terms.

Most of the cases in the InterSard database refer, however to technologies, and it could well be that such databases are much more suited for that level of best practices. For more complex processes, interested people would either have to refer to original documentation or the nature of the database would have to be adapted considerably.

3.3. Identification and Documentation of Best Management Systems

3.3.1. FAO

Examples from FAO include a wide range of international and regional programs, usually with a focus on generating and sharing good, better or even best practices, and knowledge.

The example of the Asia Pacific Forestry Commission is particularly relevant to MRC-WSMC in that line agencies (forestry administrations) are the members of the commission. The program of activities copied in appendix 2, demonstrates the wide range of knowledge, practices, standards, and procedures included in that program.

The target audience is not just the commission (comprising senior personnel from forest administrations in the Asia Pacific region), but through them other personnel of Forest Departments and organizations working in the forest sector.

There are complementary networks for research agencies in forestry (APAFRI), a newsletter for agro forestry as well as other more incidental knowledge sharing activities for information, education and other specialists in the forestry sector.

3.3.1.1. APFC and the Search for Excellence

One of the 12 (!) activities mentioned on APFC's website, was the search for excellence in forest management initiated in November 2001, of which the final publication is now, after 3 years, in an advanced stage.

The search was initiated by the Regional Forestry Officer after reading Drucker's[12] 'In Search of Excellence'.

The main purpose of the exercise was to present the other side of the bad news in forestry (deforestation, illegal logging, fires, etc.) and remind both professionals and others that despite all the constraints, many people on the ground were doing an excellent job. Insights into both what was considered 'excellent' and how they managed to be so excellent under a wide range of conditions were amongst the expected
outcomes from the exercise.

As explained in more detail in the appendix, nominations were elicited through two means:
   a. by contacting 'respected foresters' directly (using the contacts/'networks' from FAO-RAP, FTPP and RECOFTC),
   b. through national workshops in 9 countries, organized by trusted members of RECOFTC and/or FAO networks, in which groups of 10-30 people identified characteristics ('criteria') of excellence and generated examples of nominations.

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[12] Note that Drucker is also often mentioned as one of the 'management gurus' who triggered the best practice movement in the 80s.

Ultimately this lead to 170 forest management units being nominated. These nominations were scrutinized by a consultant, according to criteria that included both the aspects of excellence and of diversity (geographical as well as socio-economic).

The short list prepared by the consultant was reviewed by a panel of 10 international experts, leading to a selection of 30 cases (including cases not short listed by the consultant).

For each of these, the various networks were tapped again to select case study writers, who were contracted to document the cases according to an outline, including the following guiding questions:

Table 2. Guiding Questions for excellence case studies

What to think about when identifying relevant background information?	What to think about before formulating your main message?
➤ What stories do existing documents tell about this area? (list documents with annotation) ➤ What are the main steps in the management history of this forest? ➤ Who are the main stakeholders and how would you characterize them now involved in this forest? ➤ What are the main elements of management that could be highlighted from this case? What additional information would you need to help the reader understand it better? ➤ What are the main aspects of the external environment (policies, governance, markets, opportunities, etc) that have influenced management history and approaches used in the area? What additional information would you need to help the reader understand it better?	➤ How does the information and documents you have read compare to the reason why the technical working group selected the case? ➤ Can you build a story around the initially selected dimension of excellence or do you feel there needs to be a change in focus? ➤ What makes this case different from other cases? How does it differ from the forests down the road? ➤ What challenges and threats has the manager overcome historically and how? ➤ What dimension of excellence in this case could provide lessons for others and why? ➤ What are the conditions of the case which make you think it would be useful to others?

Most of the case study reports were delivered by late 2003, and since then these reports have gone through various rounds of editing and publication is reportedly due before the end of this year.

Not including (considerable !) regular FAO and RECOFTC staff costs, the budget for this exercise was about US $ 100 000.

3.3.1.2. Results & Lessons

The nominations clearly reflect the different stages in evolution in forest management in the region, from cases where property rights are ill defined and rural livelihood issues predominate to situations in which holistic forest/ecosystem management prevails and cutting edge technologies are used.

This variation is reflected in differences in perspective on what constitutes 'good or excellent' forest management, but there are some underlying aspects common to all:
- the degree to which different stakeholder perspectives are accommodated in management,
- the role of ecosystem perspectives in management,
- the recognized importance of clear and secure property rights,
- and the need for clear roles and responsibilities of relevant organizations.

The long duration of the exercise is a result of the 'open learning' approach that was deliberately pursued, in view of the second objective of this exercise ('what do people perceive as important in good forest management').

Related to WSMC's interest a similar approach could be considered, to identify and document 'excellent' local initiatives in watershed/integrated area management.

If that were to be done one would need to keep the lesson from this exercise in mind in that the 'lack of framing' of the documentation beforehand, requires much effort to provide a framework at the time of editing the case studies.

In such cases other approaches such as the IIRR write-shop process, the EWC writers' workshop process or the CBNRM-RECOFTC case study writing process should be considered (Marschke and Braakman, 2004, Suryanata, et al, 2003, Anon., 2004).

3.4. Process/Practice Development and Sharing

3.4.1. RECOFTC/FAO-FTP in Asia[13]

Since the early 1990s regional networks of community forestry practitioners operated in Asia, Latin America and Africa, under the umbrella and guidance of the FAO Forests, Trees and People Programme.

RECOFTC was the coordinator of the Asia network, comprising practitioners from 10 countries in Asia with representation from NGOs, GOs and universities.

The global FAO Community Forestry Unit's main activities focused on production of publications and information, guided by a 'topics and tools' framework, that was regularly adapted and shared with the regional networks. Topics or themes included conflict management, RRA, market information systems, food from the forest, local institutional arrangements, etc.

Regional networks partly collaborated in producing information for these topics and partly used and adapted them for the framework guiding their network activities.

With hindsight, what was attempted was to work as a community of practice, but without too much understanding of what that entailed.

This contributed to an uneasy mix of 'participatory anything goes' –but not much followed through- on the one hand and a 'joint project' approach with budgets, deadlines and reports on the other hand.

But sometimes we hit it right, the right topic, the right approach, the right participants, the right facilitator, and enough resources…..

3.4.1.1. From Farmers' Field Schools to Forest Management Learning Groups

The FFS in integrated pest management may be one of FAO's least disputed success stories. A regional FAO project (FARM) adapted the approach, process, and developed guides and training materials for a range of other applications, particularly in 'integrated soil and crop management' .

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[13] Plse note that this author has been involved in the processes presented. The advantage is 'endogenous' knowledge. The downside subjectivity !

In the late 90s FARM wound up, RECOFTC needed assistance in developing appropriate extension approaches for fruit tree management in SW China. Also, during a regional meeting on silviculture in community forestry, projects from both Nepal and Vietnam expressed concern about the overprotection and under management of forests handed over to communities. And the hardships this entailed for forest dependent members of these communities, who now had to fetch for their needs from state forests at a longer distance – in cases where such forests were around.

Thus in 2000 these projects were invited to Bangkok and met with our FAO-FFS consultant in fruit tree management, to discuss ways and means to adapt the FFS approach from crops to forest lands/ecosystem and from 'private' management to community management.

Five projects in Nepal and 3 in Vietnam worked together with RECOFTC (consultant and occasionally 5 other staff members depending on their expertise and the needs for that in any stage of the development process), through a series of training, testing, application, adaptation and documentation activities, leading 2 years later to a field guide, with a field tested and effective process. Complemented six months later with a training guide for the training of facilitators.

Box 6. What is FMLG ?

> The Forest Management Learning Group (FMLG) is a learning and capacity-building process, which uses non-formal adult education methods, based on experiential learning techniques and participatory training methods. The learning process aims at building forest users' capacity for developing community silvicultural practices and creating an opportunity for shared learning between rangers and communities to generate new silvicultural knowledge that answer local needs. In situations where planning systems allow, silvicultural practices can be incorporated into the community forest management plan.
> The approach gives much less emphasis on targeting forest users with preset extension messages, and gives more emphasis on improving users' capacity to analyze their forest management systems and practices, and developing and testing possible solutions that address forest production needs.
> (Mlagostovich, 2004)

Also, the involvement of project personnel did contribute much to the institutionalization of the process in at least some of the projects.

3.4.1.2. Lessons

It can work if you got it ALL right: the 'target' approach/process, the practitioners, the facilitator(s), the resources (allocated at the right time), the support process, the resource persons, and the facilities.

3.4.1.3. Lessons from other experiences

We tried to pursue similar approaches in developing facilitation materials (driven by 3 staff members with considerable partner input), case study writing (building on initiatives and expertise developed by a CB NRM project in Cambodia), and the introduction of forest governance ideas related to the WSSD meetings in Bali and Johannesburg.

In cases where there are 'outputs' such as guides and training materials, the effectiveness is obviously much clearer, than in the cases (such as parts of the forest governance activities) where all that happened is that 'people learned a lot'. Assessment of 'that lot' (M&E) is a challenge that is much more difficult to meet.

The approach taken by a similar network (the Asia Forest Network) in some ways resembles the processes described above, but with a much clearer and sharper focus and strategy on overall community forest management, and of particular relevance for this exercise, watershed management.

3.4.2. Asia Forest Network

The Asia Forest Network is dedicated to supporting the role of communities in protection and sustainable use of Asia's forests. AFN is comprised of a coalition of planners, policy makers, government foresters, scientists, researchers, and NGOs.

Lessons derived from the research are used as input for field implementation procedures, training reorientation, and national policy reform. Most of these are in the AFN publications which are available on their website.

Asia Forest Network activities include (www.afn.org, 2004):

- FIELD RESEARCH
    - Establishing community forest management research sites for assessing how policies and programs effect ethnic minorities and women
    - Identifying "hot spots" of conflict and forest degradation that require intervention
    - Conducting comparative studies of influence of community forestry on different types of degraded forests
    - Organizing seminars and workshops to exchange research information

- DEVELOPING PROCESSES FOR ENHANCING TENURE SECURITY
    - Providing training sessions to develop capacity-building for communities and local organizations
    - Building inter-agency cooperation and synergistic community forest management strategies
    - Supporting country trials with community dialogues and mapping
    - Assisting communities to resolve conflicts and design sustainable community forest management plans

- FACILITATING NATIONAL, REGIONAL, AND GLOBAL DIALOGUES
    - Creating new communication channels and opportunities for dialogue process
    - Supporting national community forestry working groups
    - Helping government and development agencies to formulate improved community forest management policies
    - Designing action research and policy analysis programs
    - Encouraging cross-disciplinary and flexible programs that introduce new practices

- COMMUNICATION
    - National and Regional Reports
    - Working Papers and Case Studies

3.4.2.1. Results and Lessons

Results from work in the past three years by groups in Cambodia, Indonesia, Philippines, Thailand, and Vietnam are being synthesized in country papers and a regional synthesis paper. Though the focus was on community forest management, the results demonstrate that in all cases a wider NRM and often watershed management approach was pursued. Land use planning, interactions between lowland and upland communities, linkages with local government plans at different levels (village, district and province) are addressed in different degrees and modes depending on the local situation. The policy contexts are taken into account, and linkages with national

working groups strengthened; in many cases, AFN was instrumental in the formation of these working groups (see e.g., for Vietnam results, Dzung et. al., 2004)

For the future, it is expected that the watershed framework and approach will be further articulated, and multi stakeholder approaches further developed. Interest from groups in Lao PDR in participation in AFN is being explored (see forthcoming report of AFN regional meeting 2004).

3.4.2.2. Assessment

In terms of the categories introduced earlier, the label 'knowledge network' may fit the Asia Forest Network better than others. As we did not introduce the term 'learning alliance', we won't use that, though it may better describe its structure and functioning.

If WSMC were to consider to pursue or support this type of strategy in the future, exploring collaboration with, or at least building on experiences from AFN would be highly advisable. One aspect that should be considered of particular relevance in such collaboration could be the revival of joint support to national working groups, many of which were initiated by WSMC's predecessor project in collaboration with AFN.

3.5. Sharing Research and Development Results

3.5.1. CIFOR

CIFOR's best practices come in many different formats and media: lessons (such as the compilation of lessons, experiences and issues in decentralization and forest management); methods (for research, for planning, for modeling), standards (see the range of materials on criteria and indicators for sustainable forest management), and policy issues and briefs (also from other agencies, see POLEX listserve).

The wide range of topics on which CIFOR is working may be illustrated by the titles of the fact sheets that can be downloaded from their website:

Illegal forest activities; Secondary forest; Community forestry ; Deforestation and degradation ; Forests and fires; Forests and biodiversity; Forests and poverty; Livelihoods; Forests and conflict; Forests and 'fast wood'; Forests and decentralized control; NTFP.
(source: www.cifor.cgiar.org/docs).

The lessons from decentralization in forest management compiled by CIFOR, WRI and others are of particular relevance to watershed management (Larson 2004).

But so is their work on governance, adaptive forest management, scenario planning, and most of the other topics mentioned.

As the documentation are exemplary items of 'knowledge infused products', all that may need to be done is to ensure that relevant watershed management partners have access to them.


3.5.2. ICRAF

If any of the foregoing examples were rightly termed 'best' practices, then the work done in Mae Chaem watershed would have to be termed 'excellent practice'.

The ICRAF work has provided answers to many key questions in watershed management. The approach developed and tested will here be considered as one of the most promising leads into future watershed management work (until and unless a better one can be identified).

The challenge will be to adapt the approaches and tools to other environments, particularly those less well equipped in terms of expertise.

It is proposed to explore taking the work done in Mae Chaem by ICRAF and partners as the reference point for the development of a general watershed management process (Thomas, et al., 2004).

Fig. 3 ICRAF's WSM FRamework

Figure 1.
Pilot Spatial Information Network
For Participatory Watershed Management
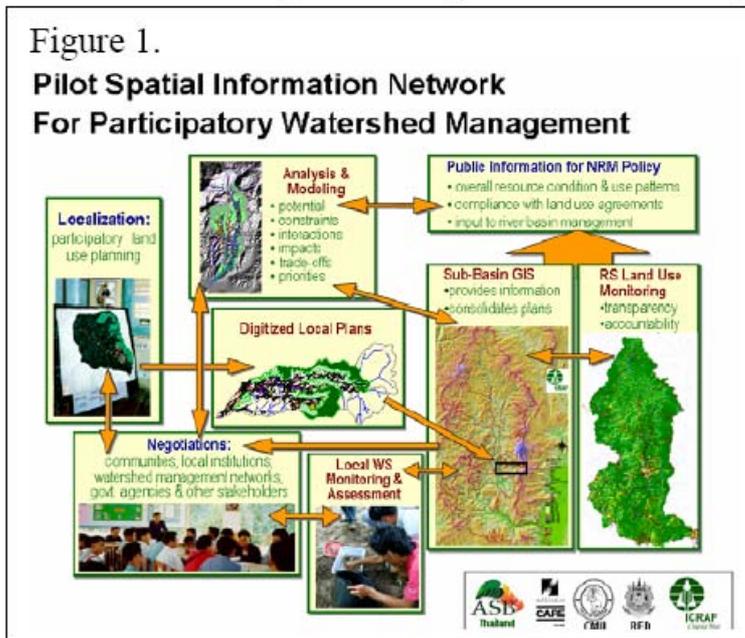
The activities in the area in partnership with a range of organizations, focused on developing knowledge and experience in 3 interrelated areas:

a. building a pilot spatial information framework capable of linking local land use plans, monitoring and management, with sub-basin and higher levels of activity,

b. development of tools to strengthen local watershed monitoring and management conducted by communities themselves,

c. piloting analyses and analytical modeling that provide broader impact assessments and predictive capacity to help improve public understanding, set priorities, and inform policy decision making at various levels.
(Source: Thomas, et al. 2004)

As depicted in the diagram, the main sub-processes are:

a. local land use planning & zoning, including identification of land use zoning categories by villagers,
b. negotiation processes with a range of stakeholders,
c. analysis and modeling: to identify potential, constraints, interactions, impacts, trade-offs and priorities,
d. all of the above contribute to –digitized- local plans,
e. to be monitored and assessed by local stakeholders,
f. information from analysis and models, plans and monitoring feed into sub-basin information and consolidated plans,
g. and these enable land use monitoring at sub basin level,
h. and provide information for policy making on overall resource conditions, compliance with land use agreements, and input into river basin management.

The practices and tools developed in this project, demonstrate how:

a. plans negotiated through PLUP can be integrated into broader spatial information systems,
b. GIS and remote sensing tools assist in providing transparency and accountability to enhance chances of public and policy acceptance of local land use agreements,
c. local communities can monitor watershed and other environmental services, that can be scaled up into broader monitoring networks,
d. models and analyses can be used in helping both local and higher level decision makers,

e. science based tools can assist to manage competition and reduce upstream – downstream conflict.

To further explore the adequacy of this process for WSMC purposes, one test could be to assess the Mae Chaem process and related processes developed with TAOs in Northern Thailand, based on Poppe's proposed strategy for area-based planning.

A further test could be to do a similar exercise based on the issues identified and recommendations proposed for land use planning and allocation.

And for both assess to what extent the 'Mae Chaem' and related processes do meet the suggested criteria.

Even if the process passes these tests, one would still have to keep in mind that the effectiveness of the practices must be placed in context. I.e., in the context of the Mae Chaem watershed in Northern Thailand, and implemented by international researchers, high quality university staff, very experienced field workers from an international NGO with 20 years experience in the area, etc.

So, the idea is NOT to 'disseminate the best practices and innovations' generated by this project, the idea is to:
- learn from the overall process and use that as the basis for identification of the critical elements and relationships in watershed management,
- encourage a range of practitioners working under a range of conditions to 'benchmark' their own performance in each of the sub-processes,
- assess the need for better practices in each of those,

A second lesson to be learned from the ICRAF experience refers to the review of upland agricultural development in Lao PDR carried out by ICRAF for IFAD (Thomas, 2003).

This exercise demonstrates the need and use of 'personal' knowledge management or sharing (HBR, 2001) that is called for in cases of complex issues, requiring 'higher level' knowledge (earlier characterized as "care why" knowledge).

The analysis focuses on identification of issues in area based development in the uplands of Lao, and the related points for policy dialogue with the Lao government.

The issues identified and analyzed and the related points for policy dialogue include:
- ❖ policies and visions for upland agricultural development (referring to integrated watershed management as a possible framework for upland development),
- ❖ the roles of provincial and district authorities,
- ❖ land use constraints, turbulence and uncertainty,
- ❖ disruption of core subsistence enterprises,
- ❖ distant commercial opportunities,
- ❖ weakness of institutional support,
- ❖ emerging national institutions and systems for adaptive and problem solving research,
- ❖ rice intensification for household safety nets and irrigation,
- ❖ agroforestry and cash crops,
- ❖ non timber forest products,
- ❖ community based natural resource management
- ❖ emerging national systems for agricultural extension and support services,
- ❖ innovative approaches to linking adaptive research with extension support services,

❖ over-arching issues, including the need to build synergies amongst projects, the need for incentives for local government staff, and the need for more realistic designs and frameworks for development projects (Thomas, 2003, op cit).

The challenge for other WSMC's regional knowledge management strategy is how to build on the work from such 'knowledge leaders' and find ways of collaboration that make sense to both parties.

This also applies to the work done by AFN and partners. One strategy to be explored is how this could be used for e.g., well designed a benchmarking exercises and adapt the processes and practices to local conditions and capacities.

And/or the issues and processes identified, could be taken as the basis for the preparation of field guides and training modules for capacity building efforts.

But one should keep in mind that national level pilot projects often also pursue this approach, and some with considerable success, as the example of the Social Forestry Development Project in the Song Da watershed may demonstrate.

3.5.3. The Song Da Social Forestry Development Project

The Song Da Social Forestry Development Project has been operational in the North West of Vietnam from 1993 to 2004.

It has developed a process (or 'methodology') for participatory land use planning and land allocation, complemented by a methodology for participatory village development planning.

For implementation it has developed a process for the establishment of village based forest protection regulations, village based forest management planning and of a needs-oriented extension concept.

In all cases these processes and practices have been developed in active collaboration with the provincial, district and local governments concerned, and in dialogue with the national government. This has greatly facilitated the adoption of these processes by the local government agencies, and contributed to its wider application outside the project area. Though, for the latter, the contribution from other projects and initiatives (as e.g., the SIDA supported Mountain Rural Development Project) should also be acknowledged.

To facilitate the adoption and consultation with national authorities, the project moved from its original institutional location within the national forest planning institute, to the ministry of agriculture and rural development, in charge of forestry affairs.

Documentation of experiences, processes and practices in both English and Vietnamese has contributed to the wider application and adaptation of innovations generated by the project (see e.g. Khiem and Van der Poel, in Poffenberger, 1998).

During the last phase of the project (2002-2004) the project focused on developing teaching capacities in vocational and technical institutions so as to support the institutionalization of the processes and practices developed by the project.

3.5.3.1. Processes, practices and sharing

The development of effective processes and practices in the project was based on an intensive analysis of different local land use patterns and land users, a thorough understanding of the national policy environment, active consultation and dialogue with national and local governments, and interactions with other projects and initiatives.

This author is not aware of any analysis of the reasons for the apparent success of the project. The following impressions may therefore need to be corroborated or adapted by project insiders.

One important element seems to have been the active engagement with national policy makers and senior forest administrators. NOT for 'policy advocacy', but in active consultation and exploring space created by changing policies. E.g., for the participatory land use planning, a national legal framework had been adopted in 1993, and the project wisely identified the development of tested implementation guidelines as a major opportunity. Similarly, in the initial stages of the 5 million hectares afforestation program, the project used its experiences in the project area to convince national program administrators to include assisted natural regeneration (see the earlier reference to village based forest regulations), as an acceptable strategy.

The other crucial element appeared to be the working relationships and active involvement of local (provincial, district and village) governments in the development of new processes and practices.

Both of these elements working with local governments and in consultation with national government representatives were later institutionalized in the national working group on community forest management (see below).

It is also important to point at the duration of the project demonstrating the rule of thumb that changes such as described here take a decade to develop, adapt and be institutionalized. That the project's innovations are also adopted and adapted outside the project area is indicated by Rock's (2004) reference to the two processes for PLUP/LA, presently guiding these processes in Vietnam, one developed by SD SFDP, and one by FAO.

Similarly, the Hue Provincial Department (supported by SNV) selected the project area as part of their benchmarking exercise and decided to adapt the processes observed in the area (Delnoye, pers. com.).

The Asia Forest Network report (Poffenberger, 1998) earlier referred to, is one illustration of the way regional networks could build on the 'best processes and practices' developed by national projects. More recent work by the Vietnam community forestry working group and AFN (Dzung et al., 2004), provide even better examples of how initiatives such as SD SFDP can contribute to longer term learning processes.
The predecessor of the MRC-WSMC was instrumental in the initiation and development of the national working group on community forest management (with the Song Da project, AFN and others).
As similar working groups were also initiated in Cambodia and Thailand, and assuming that the more recent national and regional working groups on WSM can build on these experiences, WSMC appears to be very well positioned to facilitate national and regional learning and development processes in area based/watershed management planning (see also Appendix 3, for additional information on the SD SFDP).

3.6. Conclusions

The above selection of different approaches to 'generating, gathering, organizing and disseminating best practices' is obviously far from complete. Additional examples of relevant programs and projects involved in knowledge production, collection and sharing in the region, can readily be found, and some of these are presented in appendix 6.

For WSMC this raises a number of issues to be considered in the design of its watershed knowledge management approach:

a. avoidance of replication, assuming that it would not make much sense to initiate something that is already going on,

b. modes of collaboration: depending on shared objectives and other criteria, collaboration could be explored with those initiatives that can contribute most to WSMC's objectives (and vice versa),

c. opportunities for complementarity with or adding value to on going best knowledge generating and sharing initiatives,

d. the legacy and 'intellectual capital' from the work of WSMC's predecessor in supporting national working groups involving a range of key actors.

Finally, it should be mentioned that we here mainly focused on regional/ international initiatives, but there is a whole range of projects and initiatives in the LMB countries that is also generating and sharing best practices, as the example of the Song Da Social Forestry Development Project, should remind us.

One issue to be considered is that each network and project has a fairly limited audience and range of people involved, particularly those that focus on the generation of processes and practices.

Also in view of MRC's mandate, the challenge for WSMC is to find ways to bring these experiences together and find ways to 'embed work systems into knowledge systems'. As indicated earlier (see section 2.5) this will require knowledge partnerships and knowledge system coalitions.

In the next section we'll explore what that could mean and what WSMC's role could be in facilitating such inter-organizational knowledge systems.

4. Towards Regional Watershed Knowledge Management in the LMB

'the most important aspect of knowledge is the people who do the knowing. …a good practice case (or a collection of them) is only a tool if someone else takes it and uses it for a purpose…..there is still a misunderstanding of the respective roles of benchmarking, on the one hand, and good practice, innovative uses of collective knowledge and communities of practice (CoP), on the other' (Millard, 2003, p. 54)

4.1. Lessons for Design

In the design of the watershed knowledge management system, the lessons from the foregoing sections need to be taken into account:

a. the implications of the shift from practices (know how and who) to watershed management knowledge ("care why"),
b. the existence of sources of higher level knowledge and knowledge networks in the LMB, and the need to define linkages with these 'knowledge leaders',
c. the elements of the MRC MSWC system that have been developed already and their state,
d. the need for and shape of some sort of 'integrated knowledge management model', with clear goals, objectives, priorities and a transformation plan specifying the nature of development of the various elements.

In the following sections we'll present some ideas for consideration on:

a. the knowledge system vision and strategy,
b. its infrastructure and technologies,
c. processes and mechanisms to capture, share and create knowledge,
d. utilization of watershed management knowledge

The key point for further development of WSMC's regional knowledge management strategy is to recognize that the development of many elements of the 'integrated knowledge management model' has been initiated already.

In other words, WSMC is already developing a regional knowledge management strategy, and what is required for the next steps is to assess the state of these elements and set the direction for future development.

The recommendation for entry point in the development of a knowledge management system in section 2.5 may illustrate this point: 'to encourage people to develop and participate in knowledge communities. Leaders and managers need to facilitate the development of these knowledge communities to the point that a knowledge landscape begins to form, knowledge gaps are identified, and priorities are established'.

As the next sections may hopefully demonstrate, WSMC has 'entered into these points' and 'the point of the beginning of the formation of a knowledge landscape' has been reached.

It is, however, less clear whether the landscape is sufficiently articulated to enable the formulation of clear knowledge goals, objectives and priorities. In earlier sections we have proposed that further synthesis of the findings in terms of knowledge management may be required for that.

This could also assist in the articulation of a clearer transformation plan, assisting in the identification of strategies to address priorities.

4.2. Towards a Knowledge System Vision and Strategy

In the goals of the system support to the development of integrated watershed management (in Thailand, Lao and Vietnam) and area based, decentralized planning (in Cambodia) would have to be addressed.

In the objectives, the various levels of watershed management knowledge may need to be emphasized, as well as the recognition of relevant regional and national initiatives. And the need to enhance the synergy between these initiatives both at national and regional level.

In the transformation plan, the present state of the various elements of the system and the nature of their development will need to be specified.

In the following sections provide some considerations for that state and their possible development are presented.

4.3. The Knowledge Landscape in Watershed Management in the LMB

The analysis of the knowledge landscape was (in section 2.5) identified as an important part of the vision and strategy in the KM model.

Some of the contours in that landscape have been sketched in the review of best practice sharing in section 3, other elements can be derived from the WSMC project working papers, particularly the ones assessing the state of the art in land use planning, community forestry and area based planning.

In summarizing the findings from the project working papers we have focused on the state of process development, which is admittedly only a partial indicator of the state of knowledge.

4.3.1. The state of process development and specification in land use planning, and community forestry.

Three of the project working papers have identified/reconstructed relevant processes and compared classification schemes, as illustrated in table 3 for land use planning.

Table 3: Overview of the LUP/ LA Procedures in Laos (Braeutigam, 2003)

Stages	Main Activities	
	Eight-stage procedure	Modified ten-stage procedure
Stage 1	Preparation for the implementation of LUP and LA activities (training of staff/ preparation of materials, villager consultations).	LUP and LA preparation
Stage 2	Village boundary survey, land use zoning, forest surveys and land use mapping.	Village boundary delineation and land use zoning.
Stage 3	Data collection and analysis concerning land tenure, socio-economic conditions and needs.	Data collection and analysis.
Stage 4	Village land use planning and land allocation meeting.	Village land use plans.
Stage 5	Agricultural field measurements.	Forest and agricultural land allocation decisions.
Stage 6	Preparation of forest and agricultural agreements and transferring rights to villagers.	Field measurements of agricultural lands.
Stage 7	Land use management extension.	Forestry land agreements and transfer of rights to villagers.
Stage 8	Monitoring and evaluation	LUP and LA information storage.
Stage 9	-	Agricultural land allocation records.
Stage 10	-	Monitoring and evaluation.

The paper on land use planning (Rock, 2004) concludes that there is range of effective initiatives at pilot scale, and that there are great similarities in the approaches developed and tested in the four countries.

A number of challenges remain to be addressed such as funding mechanisms, mapping standards, dealing with shifting cultivation, limited local relevance of national forest classification systems, and the official recognition of community tenure (common property regimes).

As the work by ICRAF in Thailand (Thomas 2004) illustrates, there are sources in the region to make the processes smarter and introduce better (science-based) tools or practices in sub-processes.

Similarly, for community forestry development the specification of the processes is in many cases sufficiently developed, articulated and specified, and sufficiently 'smart' as the basis for further similar development as in the case of land use planning.

How processes for sharing, creating and use of this knowledge can contribute to the required organizational competencies should be one of the objectives in the design of WSMC's knowledge management system.

But here we are dealing with smart processes, and services; the development of area based planning may entail more than that. In terms of our knowledge management model: this may entail changing the rules of the game, or of the game itself.

4.3.2.. The state of process development in area based (decentralized) planning

As compared to land use planning and community forestry, area based planning, conceived as incorporation of natural resources in local government development plans, is less well developed in the region.

Poppe (2004) has proposed an area based planning strategy in which development and conservation goals are combined. The main rationale for this proposal is that it builds on (decentralization) processes that have been initiated in all four countries, and much work is going on by a variety of actors to develop and improve area-based planning processes that are very similar to the ones envisaged in MRC-WSMC's watershed management concept.

Details of his proposal are provided in box 5.

The proposal illustrates the conceptual stage of process development and the proposed components are more criteria for the various processes, than descriptions of these processes.

Box 5. Suggested Planning Strategy and Components (adapted from Poppe, 2004)

5.1 Institutional arrangements: build on decentralisation processes; Cambodia: communes, Thailand: sub-districts/provinces, Lao PDR: provinces/districts, Vietnam: provinces/districts plus communes // dissolve elements of watershed management into appropriate manageable levels //apply the concept of subsidiarity to identify watershed management activities at lowest appropriate level where competence exists.
5.2 Conceptual arrangements: spatial-functional area-based development // capacity building based on a systemic approach (combining institutional, organizational and individual requirements) // emphasize the "economics" of natural resources and protected areas // apply 'common property regimes' in relation to watershed management // conflict resolution through rules agreed by all stakeholders // develop tools for watershed management monitoring.
5.3 Planning Arrangements: enhance consistency of government policies // reconcile natural and administrative boundaries // define hierarchy of different kinds of plans and their horizontal integration // incorporate environmental issues (e.g. water resources) into plan preparation // define codes of practice for each sector // apply participatory planning methodologies // strengthen dialogue and negotiation as inter-active planning tools // create and install transparent procedures for decision points in each sector and between different planning levels.
5.4 Financing Arrangements: stabilize central level financing mechanisms and resource allocation to local level governments // strengthen local mobilization of resources for implementation of local level plans // identify supplementary financing approaches (compensation payments) // explore and apply the "user pays" principle through water use charges.
5.5 Implementation Arrangements: manage stakeholder consultations at each level // quality management approach at sector level // incorporation of watershed management principles into the sectoral planning // creation of decision points within formal permit/concession issuance procedures for specific land & water resource related investments // formulation of agreements between sectoral agencies, administrative levels, districts, regions and countries on observing established objectives and "do no harm" principles;

The components (criteria) do demonstrate the composite nature of this process, in which elements from the LUP/LA and from community forestry planning and assessment are to be incorporated.

See the review by ICRAF in Lao PDR (Thomans, 2003) as an example for this type of more comprehensive review.

Many other authors have also pointed at the importance of linking these local level community based natural resource management and planning processes to the emerging decentralized planning by local government (Suryanata et. al. 2003).

Both the stakes and the challenges involved are considerable and there is a growing consensus that it is urgent to address these challenges (Larson, 2004).

Also the conclusions from the community forestry assessment (in Lao and Cambodia) point at this direction: "the institutional set-up and procedures for the decentralization of forest management" is a major concern (Braeutigam, 2003, p. 62).

Recent proposals for Cambodia (Independent Forest Sector Review, 2004) have also advocated a 'partnership approach' in forestry in which communes are to play the key role. This is already the case with the TAO in Thailand, and there are good examples in both Lao (Thomas, 2003) and Vietnam (Dzung et. al. 2004) of efforts to link village level management planning with commune and district level.

All authors have also strongly advocated the opportunities for sharing experiences between the four countries, so as to accelerate and improve the learning and development process.

4.3.3. Development of the area based planning process: a case from Cambodia

The state of the commune level planning process has been summarized by Poppe as sketched in fig 4.

Fig. 4. Communal Planning Process, Cambodia (Poppe, 2004)

This process is the basis for the initiative by Seila in Cambodia to explore the integration of natural resource management planning into the commune development and commune investment planning processes.
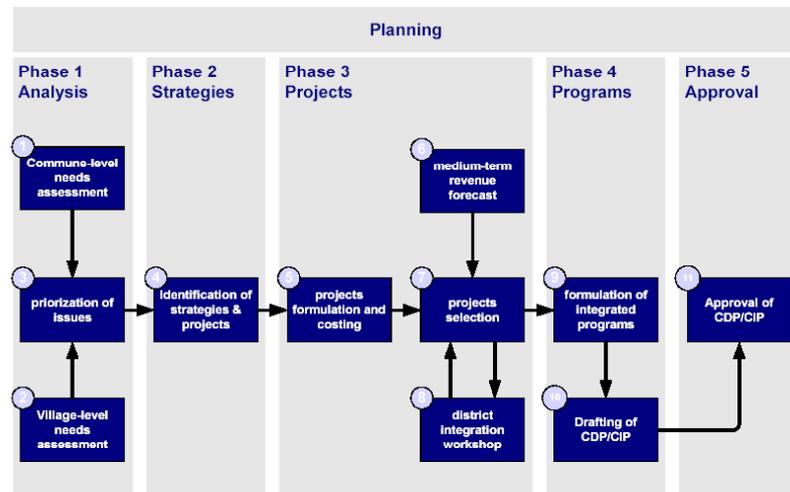
The initiative demonstrates that also in Cambodia the need for approaches similar to 'integrated watershed management' is being recognized and people working on these initiatives could both contribute to and benefit from improved sharing of experiences and knowledge.

Procedures for mainstreaming natural resource management with commune councils are being piloted in 40 communes in 3 provinces, and it is planned to expand that to 6 provinces in the coming 3 years.

Meanwhile, the Ministry of Land Management, Urban Planning and Construction has adopted PLUP as their framework for land use planning, focusing at the village level (5-8 villages may be part of one commune).

Seila has recently commissioned a study to investigate whether and how the two processes could be combined (Marschke, 2004). Below is the comparison of the strengths and threats of both approaches:

Table 4. NREM-PLUP in Cambodia – Strengths and Threats

NREM MAINSTREAMING		PLUP	
Strengths	Threats	Strengths	Threats
Process ensures NREM has a voice in decentralized planning processes i.e. legitimizes the role of NREM	Integrating NREM into a pre-defined, infrastructure focus planning process is challenging, given that many NREM issues require longer-term solutions	A flexible, holistic approach than incorporates both land use planning and NREM	Some legal aspects on land management remain unclear
Gives Commune a way to express their NREM needs to technical departments and NGOs	NREM mainstreaming too complicated, especially for facilitators, at this point; not yet driven by local level.	Brings together multiple stakeholders to facilitate this process.	Coordination of a multi-disciplinary, multi-institutional approach a challenge at national and provincial levels
Designed in a participatory manner; is seen as an interactive, learning process	Everyone frustrated by time spent planning with few activities being implemented	Goes slowly, village by village, with time being taken to solve conflicts or identify others who can help to solve land and NREM conflicts	Complex approach, requires excellent facilitation skills and time i.e. always requires outside facilitation
Planning enables discussions which enhances villagers and facilitation team awareness and comprehension of NREM issues	Not clear how enriched plans are as a result of planning i.e. are solutions more appropriate as a result of NREM mainstreaming?	Maps enhance local understanding of their situation i.e. gives overall picture to people which can help with planning	GIS support structures and mapping facilities limited
NREM planning is a chance to explore resource / livelihood linkages i.e. how to enhance rural livelihoods through different NREM activities; if facilitated well, can encourage Communes to initiate some of their own activities i.e. conflict-resolution around land issues	Writing down solutions into a plan doesn't allow for other NREM issues to be solved i.e. plans made once a year, and land grabbing or poaching activities may be seasonal or may just happen and not be accounted for		Land grabbing a complex issues i.e. there are no easy answers. To map out land issues is difficult, given the illegal nature of much land exchange

(source: Marschke, 2004, p. 20)

Based on these findings, recommendations include:

a. simplification of NREM tools and methods'
b. creating a clear training manual for facilitators,
c. develop indicators to assess effectiveness of NREM mainstreaming,
d. ensure greater representation of key stakeholder-villagers in CIP planning process,
e. assess how priorities in NREM are actually decided
f. and on longer term: reconcile tools, and methodology.

These summaries provide some indication of the contours of the knowledge landscape in terms of know-how, what and why in watershed management.

Also for the 'who' the map is incomplete and needs to be further developed.

4.4. Watershed Management Knowledge Leaders, Facilitators and Practitioners

Rock's appendix 2 provides a good example of a starting point for the identification of facilitators or potential knowledge network members in watershed management.:

Table 5. Knowledge facilitators and potential network members in WSM

Cambodia:	Lao PDR:	Thailand:	Vietnam:
>Rural Development Programme (RDP) MRD-GTZ >Participatory NRM Project (PNRM) FAO >Commune and Community Based Natural Resources and Environment Management (CCB-NREM) DANIDA >CB-NRM Ratanakiri SIDA/PLG – >Non Timber Forestry Project (NTFP) NGO – >Land Management and Administration Programme (LMAP) MLMUPC and WB/GTZ/Finnida – >Cardamon International (CI) NGO – >Norwegian People's Aid (NPA) NGO >Handicap International Belgium (HIB) NGO – >PRASAC MRD/EU/GTZ – (now phased out)	> Rural Development in Mountainous Areas (RDMA) CPC/GTZ >Shifting Cultivation Stabilization Project Huaphan MAF/ADB >Phongsaly Forest Conservation and Rural Development Project (MAF/EU) >Lao-Swedish Upland Agriculture and Forestry Research Programme (LSUAFRP) (NAFRI/SIDA) >National University of Laos (NUoL) (Faculty of Forestry) >Planned: WB Land Policy Development - -------->Former projects: Lao-Swedish Forestry Project (LSFP), Forest Management and Conservation Project (FOMACOP), Nam Ngum Watershed Management and Conservation Project (NAWACOP)	>Sam Mun Highland Development Project, UNDP - until 1997 >Thai-German-Highland Development Project (TG-HDP) ONCB/GTZ – until 1998, >Nan Rural Development Project RFD/DANCED – until 2002, >Highland Agricultural Development Project (under the Under-Secretary of State in the Ministry of Agriculture and Cooperatives) >Royal Projects (37 stations in 6 provinces in total); >Asia Forestry Network: "Forestry Support Project"	>Social Forestry Development Project Song Da (SFDP) MARD/GTZ/ GFA >Son La – Lai Chau Rural Development Project MARD/EU > Afforestation Projects 1-6 (KfW) >Forestry Sector Project ADB – >MARD/FAO/ITA – supported in the past >Mountain Rural Development Programme (MRDP) MARD/SIDA – supported LUP in the past >SNV Hue – >Helvetas

(source: Rock, 2004, p. 56-57).

If there were one individual per project interested to contribute to a knowledge networking activity, one would already have a 'quorum' of 20-35 people.

But, particularly in Thailand and Vietnam, there are more people (from universities, research institutes, NGOs and a range of government departments) who could be interested and interesting, as e.g., as the Thailand Environment Institute involved in supporting local government in environmental planning, and in regional environmental governance.

There are a number of IDRC supported CB NRM projects, not mentioned in the list above, who would be most interested to participate.

There is also a need to more carefully identify practitioners (from both GO and NGOs) supporting local level planning initiatives such as various departments from the Ministry of Interior (including Community Development) in Thailand.

In exploring the feasibility of coalitions or partnerships with any of the potential knowledge leaders, additional criteria for partnership will need to be developed and applied.

One requirement is the shared conviction (by both MRC-WSMC and potential partners) that the challenge of watershed management is too complex and too entrenched to be adequately addressed by one organization.

A partnership should be perceived by both sides as a stategic approach to carry out an organization's work in order to achieve the greatest possible impact.

In selecting partners, a focus on the expected outcomes of the partnership is to be maintained. Outcomes, both at the level of the specific objectives of the WMS in the LMB work, and on the long term benefits for sustainable development in the basin, by strengthening local institutions and organizations.

Expected partnership outcomes can be specified in terms of opportunities to get access to new experiences and knowledge, the enhanced comprehensiveness, improved coordination, risk reduction (both resulting from internal design and from the context), and capacity building (EDC, 2001)

One obvious way to identify partners (or enable partners to identify congruence between their program and the proposed one) is to use mission statements as the first criterion.

But one could build on that and expand the list of criteria, by specifying the proposed program's interest and the prospective partner's interest in terms of: purpose, audience/partners/clients, programs, activities, operational systems, resources, and partnering mode.

Candidates for international (regional) partnering and some of the reasons for referring to them in this context, are:

a. FAO: FAO (both the regional and the global office) have expressed an interest in supporting a community of practice on 'devolution in forestry'. Based on earlier collaboration on the theme, RECOFTC was approached for further exploration. The idea is alive, but no firm decisions made.
b. IDRC: IDRC is supporting a number of initiatives in CB NRM, networking and policy dialogue. Informally ideas have been exchanged on networking in institutionalization of participatory approaches and policy dialogue,
c. The Asia Forest Network: has demonstrated interest and experience in watershed management, networking, documentation and dissemination of best practices, and collaborates with partners in Thailand, Cambodia, Vietnam and possibly Lao,
d. CIFOR: has expressed interest at various occasions to support innovative networks, in community based NRM, and/or adaptive management,
e. Ford Foundation: supports RECOFTC to do a global exploratory exercise on payment of environmental services, (including watershed management, see appendix 5 for more details) and is active and interested in supporting similar initiatives in the LMB,
f. AIT: for obvious reasons as mentioned in the working paper on training,
g. ICRAF-SEA/WRI-REPSI: for reasons mentioned above,
h. IIRR: very solid and innovative experience in documenting best practices, in training, and in action research and involved in similar exercises in the region; also provides training and TA in participatory watershed management,
i. IUCN: refer to its interest and support to wetlands and landscape approach,
j. Danida: refer to support to relevant activities in Cambodia, interest in watershed management and CB NRM (including support to RECOFTC Thailand program),
k. Mekong Learning Initiative (including Mekong Institute): involves NGOs, universities and curriculum development.
l. RECOFTC: see CoP on devolution, emergence of new program on regional analysis and representation in which networking is key strategy, and expressed interest in landscape approaches. International training courses in role of local

government in NRM, NRM governance, case study writing, facilitation and others, could also be relevant knowledge assets.

These and other organizations, would most likely positively respond to requests to contribute to a knowledge development and sharing initiative in watershed management. But not all would be equipped to perform the same roles. Identification of these roles and possible interest from these regional organizations to perform these could be one of the immediate actions for follow up.

4.5. Information and Knowledge Systems

"MekongInfo is intended to serve the many stakeholders of development in the Mekong River Basin. It seeks to support dialogue and partnerships between development practitioners from government, research organisations and non-government organisations from within and outside the basin, with a particular focus on supporting "communities of practice" in the various disciplines related to natural resources management. It also seeks to promote greater engagement between actors from different natural resources planning sectors, in line with the corporate vision for integrated river basin management" (http://www.mekonginfo.org/).

The Mekong Info system has been widely acknowledged as an innovative and useful system for the sharing of information.

It is, however, less clear to what extent it actually meet its stated objective of supporting dialogue and partnerships and… communities of practice.

Its forum facility, most directly geared towards that purpose, seems to be less well used than the information objects, including quality case studies, and a large number of other publications.

Recently, initiatives have been taken to introduce a watershed management section, in which information is categorized based on the thematic areas used for the country watershed status reports.

Further development of the system so as to enhance its use for learning and supporting dialogue and partnerships could be explored in various directions.

One direction is to further develop the information system into a knowledge system, by developing a watershed taxonomy or 'knowledge map' (e.g. based on the main processes and linkages presented in the ICRAF integrated watershed management system) and select and present knowledge sources accordingly (keeping the different levels of knowledge in mind). This could be complemented by learning sources organized according to main domain in watershed management. (see Beep, 2004 for an example of this type of structure).

Another direction would be to reverse the order and start off with CoPs and let the taxonomy 'organically' arise from the discussions.

To illustrate what could be involved in facilitating on-line communities of practice, following are the roles as identified in one approach (Tomoye, 2004):

a. build and customize a secure community workspace for every thematic area;
b. delegate leadership: select and equip coordinators to perform the tasks that drive CoPs to deliver value;
c. connect people: invite stakeholders, broker trusted professional relationships, leverage the wisdom of experts,

d. share knowledge: contextualize and qualify best practices for knowledge discovery,
e. host conversations: spawn productive conversations that solve problems and lead to new innovations.

Such on line communities generate new topics and sub-topics that contribute to an 'organically organized taxonomy''. The results of communities' work on these topics is at some stage stored in a repository for a community or topic.

In accordance with these roles, involvement of the following types of coordinators or facilitators needs to be considered:

a. knowledge coordinator: generally an information manager responsible for approving and improving documents and knowledge objects suggested by community members, highlighting important best practices and hot topics, and managing the community's sub-topics,
b. conversations coordinator: a facilitator who spends most of his or her time in the community managing or moderating the community's various discussion forums, summarizing discussion threads, and highlighting popular or important conversations,
c. community coordinator: the overall coordinator for a community is responsible for planning and leading community meetings, activities, events and conferences, managing the relationship with the community's organizational sponsor and management, linking the community's on-goi9ng activities to strategic objectives, and selecting and coordinating the other coordinator roles for the community,
d. member coordinator: a well-networked individual who connects people to build relationships and route questions to relevant experts; responsible for recruiting new members and highly-prized subject matter experts, and encouraging participation.

As emphasized at various points earlier in this paper, on line activities will only work if they are an integral part of a broader repertoire, but if off line activities are well developed then this type of on line activity could be particularly attractive for regional 'networking' for specific parts of the watershed management audience.

As discussed later in more detail, the various roles required for on line facilitation could also assist in the forging of linkages with other key actors in the region.

A combination of both approaches may be possible as well, but it seems clear that the 'social capital' generated by MekongInfo forms a solid basis to update it, and link it more firmly with the other parts of the proposed and emerging regional knowledge system in watershed management.

4.6. National Working Groups: Roles and Composition

The national working groups and regional working group on watershed management are key elements in WSMC strategy.

Though one could maintain that these are already 'knowledge communities' (or that they should function as such) it is likely that their function is more in the facilitation of such communities and/or management of knowledge networks.

The original vision on the functioning of these working groups was more like knowledge system coalitions, in that they were supposed to try to embed work processes in knowledge processes.

It is this author's impression that the working groups in Cambodia (both in PLUP and in CF) as well as in Vietnam did, and to some extent still do, come pretty close to that vision.

If that were substantiated by more knowledgeable insiders (or perhaps a more detailed review by others), then according to our integrated knowledge management framework, this would represent a remarkable success.

And major efforts in supporting and strengthening their work would be justified. The earlier suggested development of the "information towards knowledge" system, should then be geared towards building a regional and national infrastructure for these working groups.

Other interpretations of their role could include the facilitation of national communities of practice, knowledge communities or knowledge networks.

It appears to be necessary to more clearly differentiate these different arrangements, as they have different objectives and composition and require different coordination and facilitation arrangements.

Though a range of functions may need to be fulfilled, but they cannot be fulfilled all at the same time and the working groups may need to be clear about their function. And the other way around: the composition of the working groups needs to be shaped according to their –main- function.

To illustrate the need to adapt the composition of the working group to its main function , the presentation of principles for facilitating communities of practice intends to demonstrate the type of skills required to do this successfully. If that were a major function of the working group, then its composition would differ from a group that is expected to function as a knowledge community or a knowledge system coalition.

4.6.1. Facilitating Communities of Practice - Principles

Communities differ in many ways from formal organizations (or projects and programs). As they are voluntary bodies, their efficacy depends on the ability to generate enough excitement, relevance, and value to attract and engage members.

The question is how can we design for 'aliveness' and bring out the community's own internal direction, character and energy, and ensure that it remains natural, spontaneous and self-directed ? (Wenger, 1998)

Derived from lessons from other areas, the following principles are to be observed (Wenger, et al., 2002):

a. Designing for evolution: Many communities build on existing personal networks, and the challenge is not to plan the evolution of the community, but shepherd it along. This also implies that the original framework or topics, guiding the sharing of practices, should gradually evolve. Or as is also likely in the case of watershed management that different communities evolve, based on function (e.g., research or capacity building) or stakeholder affinity (e.g., local government representatives).

b. Create dialogue between in- and outside perspectives: as mentioned earlier the multiple perspectives is proposed as a guiding principle in the formation of the platform. And as mentioned in the last point, it is likely that different communities of practice will evolve.

c. Invite different levels of participation: there usually is –one or more- coordinators, and others who take on leadership roles, identify topics to address, etc. Outside this core is the active group, of about the same size, and then there is a much larger group (the "lurkers") who and are peripheral and rarely participate. And then there are others, observers, and 'intellectual neighbors'. For the WSM network this may imply that people actively involved in promoting change (such as project staff) may predominate in the discussions and contributions in forums that are open to all (such as web based discussion forums). If it is considered necessary to invite others' participation, special arrangements (e.g., field exchange visits, roving workshops) may need to be considered.

d. Develop private and community spaces: the informal, one-on-one, backchannel communications are at least, or more important, than the meetings, web site interactions, etc.

e. Focus on value, and be aware that such value may gradually emerge and evolve. The source of value initially may be to focus on current needs and problems. As the community evolves, developing a systematic body of knowledge that can be easily accessed may become more important.

f. Combine familiarity and excitement: routine activities provide the stability for relationship building connections; exciting events provide a sense of common adventure.

g. Create a rhythm for the community; the rhythm is the strongest indicator of its aliveness. The combination of familiar and exciting events, frequency of private and community interactions; ebb and flow of people from the sidelines into active participation, a mix of idea sharing forums and tool-building projects fosters both casual connections and directed community action.

If one were to take these principles seriously and try to put them into practice, this implies a considerable investment in facilitation and coordination. But also special skills in terms of both facilitation and subject matter.

4.7.2. Multiple Perspectives and Arrangements (knowledge networks & communities and communities of practice).

It is assumed that WSMC will have to try to include representatives from the main stakeholder categories in watershed management in its activities.

These include:

a. the natural resource users and managers, whose livelihoods are at stake,
b. local governments and their staff at village, district and provincial level, developing and monitoring area based and NRM plans,
c. 'extension staff' or facilitators assisting local government in the planning and monitoring at different levels,

d. pilot projects and R&D organizations generating new knowledge, processes and practices,
e. 'administrators from different relevant line agencies, implementing and monitoring national policies,
f. relevant training and education programs and institutions
g. representatives from the broader public and political environment.

This diversity requires the consideration of a range of arrangements, e.g. in terms of communities of practice, knowledge communities, knowledge networks and knowledge system coalitions for different categories and different tasks.

In deciding on the relative focus on types of stakeholders, the following additional aspects need to be considered:

a. the balance between regional and national knowledge sharing activities,
b. the language capabilities and limitations of stakeholder categories (particularly in the case of regional networking)

In view of these factors there is a risk that representatives from categories mentioned under c. to f. will be overrepresented. Possibly including some local government representatives, but very few if any at all of the first and last mentioned categories.

This is particularly problematic with regard to local governments, because of their central role in watershed management/area-based planning and depending on the situation in different countries, the need for special arrangements in the national languages for this category should be considered.
But also more generally, the range of stakeholders involved does point at the need to consider a range of strategies to capture and share lessons and experiences.

One of the objectives of the knowledge system could be to build on these multiple perspectives and approaches, and try to develop a forum and process to create greater understanding and appreciation for this diversity and how to deal with that in practice.

This is expected to be of particular relevance for the line agencies and local governments concerned who are confronted with this diversity and have to craft effective policies and administrative procedures.

4.8. Next step: Assessment of Interest in Collaboration.

Based on the findings that there are already many initiatives in NRM knowledge management on the one hand, and the limited interaction between these networks, it is assumed that collaboration with existing like minded initiatives will need to be further explored.

Candidates for participation in such discussion at regional level, according to their possible roles, include:

a. ICRAF and/or AFN as potential 'knowledge leaders' in watershed management,
b. FAO-RAP, IIRR, MLI, RECOFTC, AIT as facilitators of specific communities or discourses,
c. IUCN, IDRC, Danida, GTZ, Ford Foundation, WWF, UNDP-EU-GEF Small Grants project and possibly others (Rockefeller Foundation, IFAD, other bilateral agencies ?) for guidance, linkages with in country initiatives and possible sources of support,
d. Selected in country initiatives or networks.

An agenda for discussion could be developed based on the knowledge management model and the assessment of the state of knowledge as presented earlier.

Representatives from these organizations could be approached informally first, with a simplified and agreed summary of the findings and recommendations from this paper, followed by a meeting with those who demonstrate interest in the initiative and are willing and able to contribute to it.

Thus the knowledge management strategy and implementation arrangements would be developed by a range of organizations, and commitment from some to actively contribute.

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Annex 1. Terms of Reference

Background

The Watershed Management Component (WSMC) of the Mekong River Commission (MRC) GTZ Cooperation Programme plans to collect and disseminate best practices in Watershed Management (WSM) and related fields. As there is a multitude of existing approaches to collect and disseminate best practices, WSMC intends to identify approaches that have proven successful in the past, in order to model its own collection and dissemination of best practices onto these approaches.

In order to achieve this, WSMC is employing a consultant to compile, document and assess existing approaches to collect and disseminate best practices in the field of Natural Resources Management, and to recommend on approaches suitable for WSM within the MRC context.

The consultant should have a background in Natural Resources Management, and should be experienced in communications, outreach and training.

Time Frame

21 days in October and November 2004

Detailed Responsibilities

1. Attend briefing / discussions on scope of the exercise (in Vientiane, Lao PDR).

2. Compile an overview of the most commonly used / broadly accepted definitions of terms such as "case study", "lesson learnt", "best practice".

3. Compile an overview of the history of the best practices approach (in academia, management, etc).

4. Inventory and analyse approaches to collect and disseminate best practices implemented by different regional organisations (such as FAO, RECOFTC, IRRI, ICRAF, CIFOR, UNESCO), and by selected national / bilateral organisations or projects. Briefly highlight their target audiences, overall approach, main sub-processes and methods (selection and validation of practices, valuation / identification of "best" practices), means of presentation / dissemination, successes, failures. The joint FAO / RECOFTC forest management best practices exercise ("In Search of Excellence") and the GTZ Social Forestry Development Project (SFDP) Song Da, Viet Nam would be two concrete examples for approaches to be inventoried and analysed.

5. Based on an evaluation of approaches inventoried under 4. above, and taking into account WSMC target groups and their information requirements at both policy and implementation levels, outline approaches suitable for WSMC to collect and disseminate best practices in WSM. Recommend in particular on the sub-processes and methods of selection and validation of practices, and valuation / identification of "best" practices. Recommend on the extent to which independent external expertise would be required to support those sub-processes.

6. Recommend on potential cooperation partners (such as RECOFTC, ICRAF, etc).

7. Provide debriefing and guide discussion on next steps (in Vientiane, Lao PDR).

Deliverables

Deliver a final report in English Language, no later than 30 November 2004.

Annex 2. APFC and Search for Excellence

Asia-Pacific Forestry Commission

Created in 1949, the Asia-Pacific Forestry Commission (APFC) is one of six FAO Regional Forestry Commissions that cover the world's major geographic regions. The APFC, a forum for advising and taking action on key forestry issues, focuses on issues pertinent to Asia-Pacific, a region characterized by its diversity and rapid changes. Its activities are also shaped by shifts in international forestry paradigms, priorities and practices. The APFC meets every two years in general session to review progress, discuss problems of mutual concern and set new agendas. Balancing technical and policy issues, the objectives of the APFC are to:

✔Provide advice on forest policy formulation

✔Review and coordinate implementation of forest policy at the regional level

✔Exchange information on suitable practices and solutions for technical problems

✔Develop appropriate recommendations, for member governments and FAO, on forestry-related issues

To achieve its objectives, the APFC identifies key problems of regional significance, commissions studies of these problems, determines strategic priorities, and endorses and supports implementation of recommendations

Major APFC activities

The APFC discusses and analyzes forestry issues to promote environmentally sound and economically efficient technologies and to encourage implementation of appropriate policies in line with changing trends in forestry at the regional level. Examples of major APFC activities include:

1. Invasive species network

During the 19th session of the APFC in Mongolia, the Commission recommended that FAO support activities to increase awareness and understanding of the issues and threats associated with invasive species, develop appropriate measures for dealing with the threats, and identify additional information and research needs. In response, APFC convened an Asia-Pacific Forest Invasive Species Conference, held in Yunnan, China 17-23 August 2003. A core recommendation from the conference was the establishment of an Asia-Pacific Forest Invasive Species Network. Coordination support for the network will be provided by the ChineseAcademy of Sciences. The network plans to have its first meeting, prior to the 20th session of APFC in Nadi, Fiji.

2. Criteria and indicators

APFC promotes the exchange of knowledge and experiences related to developing and implementing criteria and indicators for sustainable forest management. Practical guidelines for the assessment, monitoring and reporting on national-level criteria and indicators for sustainable forest management in dry forests in Asia were published in October 2003 with support from The forestry Research Support Programme for Asia and the Pacific (FORSPA) project.

3. In Search of Excellence: Exemplary Forest Management in the Asia-Pacific Region

Nothing average ever stood as a monument to progress. When progress is looking for a partner it doesn't turn to those who believe they are only average. It turns instead to those who are forever searching and striving to become the best they possibly can. If we seek the average level we cannot hope to achieve a high level of success. Our only hope is to avoid being a failure.
A. Lou Vickery (Business author)

T**he search began....**

The In Search of Excellence initiative got underway in November 2001. The initiative called for nominations of forests in the Asia-Pacific region that demonstrate exemplary management. In Search of Excellence aimed to identify:

- a broad cross-section of exemplary forest management in Asia-Pacific;
- examples of forest management that show promise for the future;
- examples across a broad range of forest eco-types from many countries in the region, exemplifying management for a variety of objectives and under different ownership structures; and
- examples of both large and small forest areas.

The nominating process closed on 1 May 2002, with more than 170 nominations received from 20 countries.

We would like to take this opportunity to thank all those people who participated in the initial phases of the process contributing a great deal of effort in submitting very informative and high-quality nominations. It is a credit to forestry in the Asia-Pacific region that so many people, from so many countries and backgrounds, took the time and dedication to compile substantive nominations.

The search progresses.... (see below)

4. **Focus on environment and sustainability**

In line with UNCED initiatives, the APFC promotes sustainable forestry development by involving various stake-holders in environmental conservation, and enhancing incentives in economic, social and ecological products and services derived from forests. Recent studies examine the efficacy of withdrawing natural forests from timber production as a strategy for achieving forest conservation, assess regional logging and mill residues, and analyze non-wood forest products with "best development potential."

5. **Code of Practice for Forest Harvesting**

Through its Working Group on Sustainable Forest Management, the APFC developed a *Code* for Practice of Forest Harvesting to reduce negative impacts and enhance sustainability of forest resources. The *Code,* which was endorsed by the APFC in 1998, guides countries in drafting national harvesting codes. APFC is now supporting application of the *Code* through training, awareness-raising activities, and technical exchange. To request for a copy of the *Code*, please contact Patrick Durst.

6. **Sabah RIL study tour (16-19 March 1999)**

A study tour to Sabah, East Malaysia, was organized by the Ministry of Forestry and Estate Crops of Indonesia and the FAO Regional Office for Asia and the Pacific for high-level forestry officials in the region. The objectives of the study tour were for participants to observe and

discuss the various aspects of reduced impact logging (RIL) and related forest harvesting and silvicultural practices (such as skyline logging and enrichment planting) from the economic, technical, environmental and social points to encourage wider adoption and implementation of such practices. Participants discussed various options for follow-up activities in the field and their recommendations for follow-up activities are listed in a report available from the FAO Regional Office for Asia and the Pacific.

7. **RILNET**

RILNET is an e-mail listserver for the APFC to distribute information, synopses of research results and activities on reduced impact logging (RIL). As an electronic mailing list, the network disseminates relevant information and serves as a node for discussing "hot" topics. For more details, please refer to RILNET.

8. **Forestry Outlook Study**

The APFC undertook the Asia-Pacific Forestry Sector Outlook Study to assess the current state of forest utilization and conservation, and to provide insights into likely key developments in the forestry sector until the year 2010. The study demonstrated how rigorous analysis and dissemination of relevant quantitative information could stimulate greater interest in forest conservation. The APFC is also establishing a Working Group on Forestry Statistics and Information, and strongly encourages the use of new information and communication technologies. Reports of the study can be obtained through the FAO forestry website.

9. **Shift to devolution of forest management**

The APFC is facilitating the transition from large-scale corporate/government forestry to a more balanced approach including small-scale community-based and devolved forest management systems. This major paradigm shift has opened new opportunities for attaining sustainable forest management and biodiversity conservation by decentralizing and devolving authority and responsibility for resource management. The APFC supports the growing commitment of numerous countries to more socially just and equitable forest management and provides information on innovative and promising approaches. FAO, together with the Philippines Department of Environment and Natural Resources/Forest Management Bureau (DENR/FMB), and the Regional Community Forestry Training Center (RECOFTC) organized an "International Seminar on Decentralization and Devolution of Forest Management in Asia and the Pacific" in Davao, Philippines from 30 November - 4 December 1998.

10. **Increased investments in forestry**

A key challenge in the Asia-Pacific region is to balance the multiple roles of forests. To remedy uncoordinated and low investments in forestry, the APFC facilitates discussions among national forest program coordinators and donors to induce investments for integrated forestry development that supports livelihood strategies and alleviates rural poverty without compromising the environmental integrity of the region's forests.

11. **Working group on information and statistics**

In early 2000, FAO started working with 13 countries in South and Southeast Asia to significantly enhance countries' capacity to collect, analyse, and use forestry information and statistics for improved decision making. The work is carried out under a new 3-year European Commission–FAO Partnership Programme titled "Information and Analysis for Sustainable Forest Management: Linking National and International Efforts in South Asia and Southeast Asia". This initiative builds on the Asia-Pacific Forestry Sector Outlook Study (APFSOS) carried out under the auspices of the Asia-Pacific Forestry Commission (APFC) and completed in 1998. The APFSOS reviewed the status and trends of key aspects of the sector and presented possible paths for the future of forestry in the region through to 2010. The APFSOS also

highlighted significant gaps and weaknesses data and information. In recognition of these deficiencies the APFC emphasised the need for improving the quality of information used by policy makers to take decisions and to prepare the sector for the changes foreseen by the study. National Focal Points have been nominated for the 13 countries. Operating under the guidance of the APFC's Working Group on Forestry Statistics and Information, the project is implemented by FAO in close partnership with experts from the participating countries, relying as much as possible on their expertise and experience. Further, it aims to take full advantage of all ongoing national and regional efforts related to forestry information gathering and analysis. It also draws on the experience gained from similar EC-FAO efforts in Africa, the Caribbean and Latin America. For further information contact Thomas Enters.

12. Regional initiative on criteria and indicators for dry forests in Asia

This activity aims to facilitate and enhance the involvement of countries in the region in understanding the potential of criteria and indicators for monitoring progress towards sustainable forest management. A workshop was held in Bhopal, India from 30 November to 3 December 1999 focusing on dry forests in Asia. A report of the workshop and technical papers are available on-line.

Cont'd from 3:

The search progresses...

The more than 170 nominations required a huge amount of work to sift through the information received. Many nominees provided a great deal of supplementary information sometimes more easily measured in kilos rather than numbers of pages!

This mass of information necessitated us adding a step to the review process i.e. we hired a consultant to undertake preliminary screening of the nominations, as well as to write an individual summary of each nominated forest area. The consultant followed a clearly defined process requiring the identification and utilisation of specific selection criteria to narrow the overall list of nominated forests down to a list of 40 recommendations for future consideration.

The consultant's work was reviewed by a panel of Rome-based FAO staff, and then by the *In Search of Excellence* Technical Working Group in early January 2003. The Working Group comprised 10 people with diverse forestry backgrounds, from throughout the region. These two groups worked to identify additional nominations that should be considered in the final review process, and developed appropriate criteria for selecting the final set of forests for case studies. Among the most important selection criteria were requirements identified in the original calls for nominations, particularly, a desire to identify *examples across a broad range of forest eco-types from many countries in the region, exemplifying management for a variety of objectives and under different ownership structures*. The Working Group consequently placed a premium on identifying a variety of instructive and innovative management experiences characterising a full range of management objectives, and representative of a broad range of countries in the region.

We want to clearly and definitively emphasise one key point. The initiative was NOT and is NOT meant to be a competition, and the choice of case study forests does not imply that the Technical Working Group believes that one nominated forest is necessarily better managed than another. Nor does it mean that FAO, RECOFTC or the Technical Working Group endorse the management practices of the selected forests. What it does mean is that we believe, in the context of the other forests selected, that each nominee demonstrates a diverse aspect (or aspects) of management that tells a compelling story of innovation in meeting challenges and should be of interest to those concerned with forests and forestry in the region.

The 30 forests selected for case studies are:

Australia Timbercorp Blue Gum Tree Farm Estate Southern Forests of Tasmania South west forests of Western Australia	Indonesia PesisirForest Area Bagan Siapiapa KomodoNational Park	Malaysia FMU19(a) DeramakotForest Reserve	Sri Lanka Knuckles (Dumbara)
Cambodia BosThomCommunityForest and KompongForestPhlukFloodForest	Japan Imabari-Tamagawa-AsakuraWatershedForest	Mongolia Pine forests of Khodood	Vanuatu Fasak Eco-Forestry Project
China Lin'an ModelForest HuoshanCounty Community Forestry	Republic of Korea AnmyeonRecreationForest	Nepal BanayakPimidandaCommunityForest Chapani, Racchma, Dharapani & FagarKhola CommunityForests	Viet Nam Can Gio Mangrove Biosphere Reserve
Fiji NakavuForest	KyrgyzRepublic KyrgyzAtaJuniperForest	New Zealand WoodsideForest Forever Beech (properties in Murchison, Maruia, Matakitaki valleys) LakeTaupoForest	
India Dugli-JawarraSalForest SuliaReserveForest Periyar Tiger Reserve	Laos PDR Dong Phousoi Production Forest and Dong Sithouane Production Forest	Philippines Mt.MakilingForest Reserve Kalahan Reserve Ifugao Muyong Buswang Mangrove Plantations	

All of the nominators of forests are being contacted by letter to advise them whether the forest they nominated has been selected for the preparation of a case study and to advise them of the next steps in the process.

What are the "next steps"....

FAO and RECOFTC are drafting Terms of Reference for authors for each of the case studies and working through a process to identify independent authors who have a good knowledge of individual case study forests and sound writing skills.

A number of technical papers analysing, among other things, commonalities and differences in various management aspects among nominated forests and discussing the overall process will also be prepared. A co-ordinating editor will assist in these preparations and compile the final publication.

At present it is expected case studies will be drafted by the middle of the year, with a final publication due out before the end of the year.

We intend also to utilise the process for on-going education and training in forest management, public awareness raising related to forest management, and recognition of positive efforts to inspire forest management. We are presently looking at how best to co-ordinate a series of workshops or seminars to efficiently disseminate the lessons from the initiative.

(Source: http://www.apfcweb.org)

Annex 3. SFDP Song Da; UNESCO Best IK Practice Format.

The Song Da watershed area, covering about 2.6 million ha in the Northwest of Vietnam, is characterized by low forest cover, rural poverty, insufficient food production and unsustainable management practices to support the region's population. Recognizing the presence of both environmental and socio-economic concerns, the project team identified the following elements as necessary to the project's success:

- Participatory land use planning, land allocation to households and groups of households;
- Enhanced planning capacity of local communities (village development planning - VDP);
- Improved technological and organizational options in agriculture and forestry;
- Development of a needs-oriented agro-forestry extension service;
- Enhanced capacity of local institutions.

Objective/Target Groups

SFDP Song Da has been established as a watershed conservation measure in the Song Da watershed. The project seeks to improve living conditions of the local population in the Song Da region in harmony with stabilising the eco-system. The project's purpose is to assist rural communities in Son La and Lai Chau provinces to manage their natural resources in an ecologically, economically and socially sustainable way. The target group are the local populations in the two provinces, a large percentage of whom are Thai, H'mong and other ethnic minorities.

Implementation

The total project implementation period is 12 years (1993 - 2004) in 4 phases: orientation phase (April 1993 - March 1995), implementation phase I (April 1995 - December 1998), implementation phase II (January 1999 - December 2001) and a final hand-over phase (January 2002 - December 2004). The Department of Forestry Development within MARD is directly responsible for implementation. The project is active in five integrated areas, as described below.

1. Participatory land use planning and land allocation: While a national legal framework was developed in 1993, clear implementation guidelines were absent. In the second project phase, a village-based methodology was outlined and has been tested in villages. This methodology was adapted and agreed upon by the provincial People's Committees of Son La and Lai Chau in May of 1999. Since- 2000, the project has supported Son La province as one of the two piloted provinces with allocation of natural existing forest Following pilot results from a cooperation contract with SFDP, a total of 8,323 ha have been allocated to 5,571 households in 2001. The new policy has been integrated into the existing LUP-LA methodology, which has been applied in the whole province with more than 685,000 ha of forest land allocated with Red-Book certificates (RBC), includes RBC for communities

2. Methodology for participatory Village Development Planning (VDP): In order to improve the efficiency of government services and the sense of responsibility of the stakeholder population, the project team has outlined, tested and developed a methodology for participatory Village Development Planning Villagers are encouraged to meet and discuss their situation, determine their priorities, agree on future development goals, develop annual activity plans and formulate requests to the local government for services. This adapted methodology for village development planning was agreed upon by the provincial People's Committees of Son La in March of 2000, documented in a manual, and officially transmitted to relevant institutions for large-scale application.

3. Improved technical and organizational solutions for community forestry: SFDP methodology for establishing village-based forest protection regulations was approved by Son La Province in July 2000 (Decision 1495 QD-UB). Village forest protection regulations have since been expanded to 1,458 villages in Son La and 1,702 villages in Dien Bien. The next step

is to develop a methodology for village-based forest management planning to further elaborate solutions in community forestry. Up to now, elaboration of "village forest management plans" has been tested in 20 villages and guidelines have been documented. A respective regional network is facilitating information exchange and progress. The development and implementation of a comprehensive training of trainers package for community forestry has been defined as a major focus in the hand-over phase from 2002 - 2004.

4. Establishment of a needs-oriented extension concept: Agricultural technology and extension solutions are being developed in co-operation with SNV (the Netherlands Development Organisation), and two development advisors are stationed in the two pilots districts. The identification of solutions is entirely in the hands of the local population, based on economic and technical considerations and gender-specific needs assessment. The "participatory agricultural extension methodology" (PAEM) has been further refined and documented. In July 2003, PAEM has been approved by the People Committee of Son La and temporarily approved by the People committee of Lai Chau province.

5. Training and capacity building: Since 2001, over 500 training courses have been offered (totalling more than 11,000 participant times, including more than 20% women). In this phase, training activities focused on providing a series of specially adapted workshops and training modules in Village Development Planning and Community Forestry for specific target groups. Teaching capacities are being developed in the province in close co-operation of provincial vocational training schools. It will be the focus of the last phase (2002 - 2004) to ensure that the developed methodologies are institutionalised in the administrative process and that sustainable staff training is organised.
(Source: http://www2.gtz.de/vietnam/projects/projects_rural_sfdp_eng.htm)

UNESCO – MOST Indigenous Knowledge Best Practice: Song Da SFDP

VIET NAM	BP-II.11

Title

Village Forest Protection Regulations in Vietnam: strengthening participation in natural resource management

Themes

Community development, forest conservation, forest management, natural resources, resource management

Introducing the practice

The method of protecting forests reported here was introduced by the Social Forestry Development Project (SFDP) Song Da, a technical cooperation project between the Governments of Vietnam and Germany in the provinces of Lai Chau and So La in Northwest Vietnam. The area is inhabited mainly by Thai and Hmong ethnic minorities, who together represent almost 65% of the population. The rest are mostly members of the Kinh majority.

In both provinces the Thai minority is settled mainly around river valleys where they have established wet rice fields, fishponds and orchards on the lower slopes. Around the paddy fields and on upland plots maize and cassava are cultivated. Timber, fuelwood, bamboo and other products are extracted from the nearby hill forests. These are regarded as common property to which everyone has equal access rights, while the sustainability of the area is ensured by local customary rules. Only trees and bamboo clumps planted by individuals are considered individual property.

Traditionally, forest areas regarded as important for watershed protection have been maintained, keeping their ecological functions intact. Locally, where forest resources had become scarce, indigenous systems of forest protection and regulated utilization evolved, such as the *Nyom Pa* system in Chieng Hac commune in which the remaining patches of hill-top forest were protected by an appointed member of the

community. The *Nyom Pa* system guided decisions concerning the location and length of rotation of upland fields, planting and felling of bamboo and timber, and the placement of forest fruit gardens. During recent decades the system has been displaced by committee structures. However, villagers indicated a clear need to reorganize the *Nyom Pa* system as a very useful, traditional means of effective resource protection.

Trees are selected for cutting on the basis of the various species' properties, accessibility and timber quality. Rattan, fruit, mushrooms and medicinal plants are also extracted from the forest. In recent years, however, over-exploitation has made these products scarce. Only bamboo, with its vigorous coppicing ability, remains abundant on degraded soil unsuitable for agricultural production and is used in frequent ways by the local population.

Near a few Thai villages remnants of sacred forests still exist. Their origin lies in the old animistic beliefs and traditions of the Thai people. These patches consist of natural forest trees and bamboo clumps believed to shelter the spirits that influence the village. Clearly separated from the sacred forest are the forest cemeteries of the Thai people, which also consist of small groves of natural trees close to the village.

The Hmong are mountain dwellers practising shifting cultivation. Their main crops are upland rice and maize. Under pressure of diminishing land resources, rapid population growth and government programmes, the Hmong in many places have changed their system of cultivation from a wandering to a sedentary type. In some places they have developed complex upland farming systems that reflect intimate knowledge of natural resource management. Beekeeping is commonly practised using traditional methods.

Their system of shifting cultivation intersperses forest and upland plots and incorporates various species of useful trees. Individual trees along the edges of fields are claimed by households for private use. Tree ownership may be distinct from land ownership, particularly in the case of host trees (*Dalbergia hupeana*) on which the insects that produce the resin used in shellac production live.

Remaining forest areas not included in the shifting cultivation system are located on steep slopes and on limestone mountains. These forests provide timber for house building and fuelwood, and a few non-timber products. Traditionally, there is a common understanding among the Hmong that the forest is a resource to which everyone has free access. However, traditional rules limited unsustainable resource utilization.

The forest protection regulations

With the cooperation of the Forest Protection Department of Son La province, the SFDP began in late 1998 to develop a method of protecting forests and regulating their exploitation at village level. The government had identified such a need, and wished to improve farmers' ability to analyse their forest resources and traditional rules. The aim of the project was to develop and adopt regulations that would respond to the needs of both farmers and the government and which could realistically be enforced. Consequently, traditional rules and resource management techniques were identified and integrated into the regulations. Primary responsibility was handed over to the community itself rather than to external agencies. Up to now, over 500 villages have developed and adopted their own sets of regulations.

Contents and approach

In 1996 the government introduced official forest protection regulations (decision 77-CP). These consisted mainly of lists of prohibited activities and the sanctions associated with them. Local people were excluded from access to forestland by a system of fines enforced by the Forest Protection Units. In other words, the official regulations did not take farmers' needs and interests into account and therefore failed to achieve community-based forest management. At the same time, state capacity to enforce the forest regulations was weak.

At this stage the project facilitated a dialogue to increase the participation of the local population and succeeded in establishing trust, respect and an exchange of information among local communities and forest protection officers. It then assisted in the development of the new Forest Protection and Development Regulations through workshops with the stakeholders and agencies involved, trial implementation and final approval at provincial level. From the very beginning traditional rules were incorporated into the new regulations and as a result communities developed an interest in their continuation and success.

As described above, the practice of protecting forests and regulating their use originated in the community itself. Local people have always understood that they depend on the forest for their subsistence and for the role it plays in local ecosystems. But there is also a more spiritual basis for their relationship with the forest. They have therefore always had rules for forest protection and management at village level. Some of these are still in force, others have become outdated as they could not be adapted to the present environment. In this context the new regulations provide a legal basis to revive and adapt traditional rules and to ensure that they are recognized by the local authorities.

The entire process of developing regulations is placed in the village and is carried out by the community itself. At village meetings the community members first share their ideas and opinions on the purpose of regulations and what they would like to achieve with them. The next step is to draft the regulations. This too takes place in a participatory way, ensuring that traditional rules are incorporated. The regulations define in detail (a) the areas concerned (grouped according to specific purposes); (b) rewards and penalties for certain behaviour; (c) hunting and grazing rules and (d) fire prevention measures.

The main feature of the method described here is that local people are actively involved in the decision-making process, so that regulations suited to the local situation are drafted. Standard regulations are no longer issued in a top-down way; instead each village develops its own specific regulations. The new approach ensures the commitment of the local community because taking over traditional rules and giving them a legal basis (through approval by the district authorities) serves that community's interests. Regulations are enforced at village level with the support of forest rangers, allowing local people to be directly involved in forest protection and management and traditional institutions to take responsibility in this area. In this way communities benefit from timber and non-timber forest products, without endangering the sustainable use of natural resources since forest utilization is linked with effective forest protection.

Furthermore, the relationship between local communities and officers of the Forest Protection Department has considerably improved. A dialogue in which opinions are exchanged and needs and wishes clarified in order to achieve a common understanding of the situation and the obstacles involved is essential to overcoming the communication gap between the two groups.

Community involvement

Male and female villagers of all ages take part in the process to establish Forest Protection and Development Regulations. Since women represent an important forest user group and the sexes often follow different resource utilization patterns in the same woodlot, their activities have to be identified and coordinated for mutual long-term benefit. This is essential if the regulations are to be successful.

The village meetings at which the regulations are discussed and drafted provide forest users with the tools and skills they need to analyse their own forest resources and to generate new ideas regarding forest protection and management. Village sketch maps are drawn as a basis for discussion and the distribution of specific natural resources identified and mapped using local names.

Regulations are drafted to cover any or all of the following:
· Harvesting of forest products.
· Creation of upland plots through clearing and burning.
· Fire prevention and control.
· Cattle grazing.
· Hunting of wildlife.
· Specification of the rights and duties of individuals who own and/or protect patches of forest.
· Specification of procedures for fining, compensating and rewarding.
· Dissemination of information about the regulations.

Once all members of a village have agreed on a set of Forest Protection and Development Regulations, the village leader submits the regulations to the communities' authorities, who forward them to the district authorities for approval. Local forestry officers facilitate the process of establishing the regulations and obtaining approval and feedback from district level. Once established, the regulations are distributed in the village either as a poster at common meeting points or as copies for each individual household.

The role of indigenous knowledge

'Islands' of forest containing valuable biodiversity are preserved in spite of the current pressure to place more and more land under intensive cultivation. Indigenous beliefs and practices regarding sacred forests and graveyard forests have been instrumental in this. Even today new areas for graveyard forests are set aside by villagers and protected accordingly. The resulting patches of forest found near many villages play an important role in the general ecosystem, especially in watershed areas like Song Da. They also provide starting points for future natural regeneration.

Even today, funerals are major village events. Graves are elaborately decorated and great ceremony surrounds a burial. Such traditions give a society its cultural identity. Forest Protection and Development Regulations help to validate and preserve such traditions because they have adopted the traditional way of classifying the forest, which is shared and understood by all members of the village, both young and old. This common understanding prevents people from harvesting inside protected areas. The regulations also reinforce this valuable understanding by increasing villagers' awareness of the additional benefits of forest protection.

Achievements and results

To date, Forest Protection and Development Regulations have been approved and have legal force in both provinces. They are implemented by the Forest Protection Department, drawing on the national budget. This institutionalization of the process is considered crucial to ensuring continuation even after the project has ended.

The regulations have been established in more than 500 villages in the two provinces so far and implementation is continuing. Experience shows that villagers have become more aware of their forest resources and are committing far fewer violations. Incorporating existing and traditional rules of the community into the regulations increased their acceptance among villagers and ensured an independent commitment. Once regulations have been established, farmers feel responsible for their enforcement, since they drafted them themselves. This reduces the costs of external monitoring and ensures the long-term sustainability of the approach. Many villagers are concerned enough to protect certain forest areas voluntarily, without financial reward. The quality of the forests has improved remarkably; the incidence of forest fires in the dry season has fallen substantially and uncontrolled logging no longer takes place. For the people, the regulations combine responsibilities with benefits, so that forest protection and development becomes a concern of all. Experiencing the benefits of forest protection and regulated utilization should serve as an incentive to users to ensure that forest resources are used in a more sustainable manner.

This participatory method depends heavily on a good relationship between the forest ranger acting as facilitator and the villagers. It is vital that the facilitator be well qualified to guide the process of establishing regulations. Up to now, conventional forestry management has not included any training in participatory extension methods, which means that forestry officers do not possess the necessary skills. The staff involved must therefore be trained before they can do this work. To this end, the project provided training in facilitation skills and techniques and introduced aspects of adult learning for the staff responsible at district level.

What is more, the regulations can only be effective if villagers are themselves motivated to keep the issue alive during village meetings and on other occasions. Such independent initiative strongly depends on community spirit and/or on the effectiveness of Village Management Boards and other village organizations. Only if the whole village supports the regulations can a sense of ownership develop that is strong enough to guarantee their independent continuation in the long term.

Source of inspiration

This practice could be replicated in other areas or contexts provided several conditions are met. The first important condition is that the local authorities accept the approach. The authorities at district and provincial level must recognize the Forest Protection and Development Regulations and give them legal status. Only if the regulations are in line with other specific legislation can they be put into effective practice. Especially in cases of conflict between neighbouring villages, effective enforcement against outsiders can only succeed if the regulations are based on national law and are recognized by local authorities.

Furthermore, the process of land-use planning and land allocation has to be completed so as to guarantee the long-term tenure needed for the security of forest resources. This process mainly involves resolving and legalizing traditional claims on forestland and thus increasing local communities' sense of ownership of forest resources. Of particular importance are the definition of village boundaries and the settlement of lingering conflicts over them. Forestland allocation also increases people's sense of ownership of the resource pool and increases their independence within the decision-making process.

If you think that this case could be useful in a different context than the one described here, please get in touch first with the contact person listed below (Administrative data). Intellectual property rights could be an issue.

Administrative data

(Source: http://www.unesco.org/most/bpik11-2.htm)

What kind of information is stored in WISARD ?

At present some 3300 projects and 6000 organizations are registered in the database. The information has been classified by stakeholder group and is searchable by various keywords. Over 750,000 times WISARD have been visited since its start mid 1999.
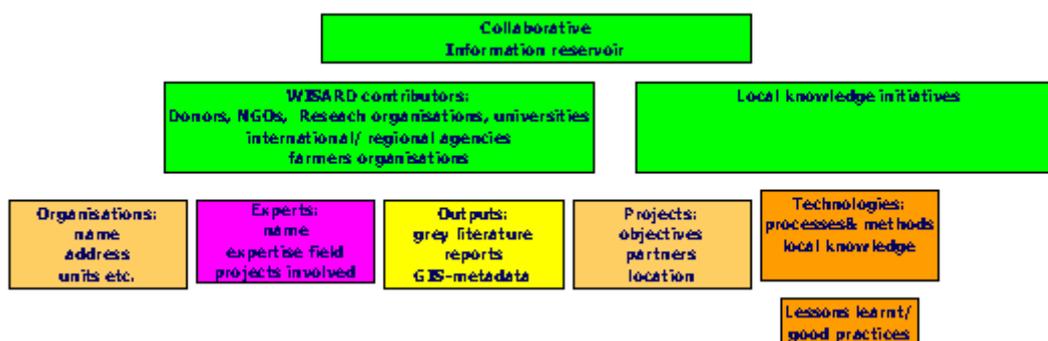
User Statistics

WISARD Pillars Data
People/Users 5628 people in the system of which 2833 have entered data
Projects 5334 records entered of which 4615 are approved and visible The latest 5 Project records accepted are: * A monitoring system for conservation of the Cerrado's biodiversity in the State of Minas Gerais, Brazil. * Evaluation of 20 years soil and water conservation activities insouthern Mali. * Soil parameters controlling methane production and emission in/from rice paddies. * Characterisation and conservation of indigenous animal genetic resources: assessment of the genetic diversity in Ethiopian sheep populations (Ethiopia) * Selection for fast growth in Nile tilapia, Oreochromis niloticus L., in low-input earthen pond environments
Organizations 6325 records entered of which 5310 are approved and visible The latest 5 accepted Organization records entered are: * Department of Agriculture, Maseno University * World Population Foundation * WaterWatch * Globus * Sustainability Challenge Foundation
Outputs 87 records entered of which 63 are approved and visible The latest 5 accepted Output records entered are: * Conceptual Note on the Nicaraguan Agricultural Technological Innovation Policy

* Need Assessment of Subanen Indigenous People in Western Mindanao
* Investigating Improved Policy on Aquaculture Service Provision to Poor People, Progress Towards Policy Change and Lessons Learnt, May 2003
* Soil Fertility Matters
* Participatory improvement of soil and water conservation practices in hillside production systems in the Andean Valleys of Bolivia.

Experts
1414 records entered of which 623 are approved and visible
The latest 5 Expert records accepted are:
* Saikia, Tulshi Prasad
* Barman, Bhubaneswar
* Bora, Pradip
* Rajpar, Inayatullah
* Bhujel, Ram Bahadur

Users and Focal Points	
Number of Users NOW accessing WISARD information	225
Number of times WISARD information was requested since 1999	1221092
Number of Countries with National Focal Points	27
Number of Organizations and Networks with own Focal Points	140
Number of Focal Points now on line	soon

Source: http://www.wisard.org/wisard/home.asp

InterSard

Towards Better Information Sharing for Sustainable Agriculture and Rural Development

InterSard is an initiative to build a network of Southern and Northern partners for the documentation and sharing of information. Principally information that relates to social and technological innovations in sustainable agriculture and the management of natural resources in rural areas.

InterSard partners believe that ICT is a powerful tool with great relevance for rural development situations in the South. The use of ICT can greatly enhance the development of knowledge systems responding to the needs of farmers and their communities.

InterSard is providing a public domain information service in combination with a capacity building programme for community supporting organisations in the South. Partners in the initiative combine forces to develop capacities and tools to document and make available information relevant for farming communities to develop their livelihoods and to protect their environments. The ultimate goal is to reduce poverty, improve the quality of rural life and enhance the economic basis of rural communities, while ensuring the sustainable use of natural resources.

InterSard can reach these goals through:

- the establishment of a 'community of practice'; a community of practitioners in the field of rural development, sustainable agriculture and natural resources management;
- stimulating the documentation, sharing and dissemination of 'best practices' in these fields;

- [capacity building](#) in information management of community support organisations;
- operating from a broad [thematic focus](#) to cover key aspects of sustainable rural and urban development and Natural Resource Management (NRM);
- making [information of resource organisations](#) including national and international research organisations, accessible through web-based tools;
- addressing [IPR issues](#) of local innovations and technologies in order to secure farmer and community rights of indigenous knowledge and the innovations stemming from this;
- developing and adjusting web-based technologies to [local user-needs](#)

InterSard Asia

InterSard Asia is a project of the InterSard consortium aiming at the development of a learning network for sharing information on good practices for sustainable agriculture, natural resources management and community based development in South- and Southeast Asia. It brings together 4 Asian (India and the Philippines) and 4 European organisations (Netherlands and UK) with expertise on information management, web-based system development and participatory institutional development and sustainable agricultural technologies. See [Partners](#) list. InterSard Asia establishes a close linkage between the [WISARD](#) web-based information service and Asian organisations actively involved in the sustainable agriculture.

The project aims at developing mechanisms, skills and IT tools for the documenting and sharing information on good practices.

InterSard Asia officially started on November 1, 2002. InterSard Asia is funded for one year by the [European Commission](#)

The activities have focused around a number of workshops held in the Philippines, India and Bangladesh. All together about 60 Asian partners have participated in 2 '[definition workshops](#)' as well as 3 '[training workshops](#)'. Existing documents on good practices are made accessible. Conversion tools and a pilot web-based Experiences module are developed in a participatory process. Organisations in Asia are trained in the use of this decentralised web-based system, and the new module on good practices. All project material will be made available on the InterSard website and a CD-ROM will be produced. The project duration is 12 months.

Close Print	**Poverty Alleviation of Indigenous Communities in Northern Mindanao, Philippines**
Executive Summary	The project facilitated the awarding of community based forestry management stewardship contracts covering 1,055 hectares to 196 farmer-households. Key activities were conducted to enhance farmers' capacity for resource management which include institution building and technical training courses on sustainable agriculture, contour farming, agroforestry, vegetable and livestock production.
Location(s)	Country: Philippines
Full Description	Objectives. The project is focused on four major objectives as follows: a) improve land tenure security through the issuance of Certificate of Stewardship Contracts to farmer-beneficiaries under the Integrated Social Forestry Program of the Philippine Government b) redesign existing farming system to improve productivity and prevent soil erosion c) improve living standard of indigenous communities through the provision of basic health services d) influence government policies and services by providing concrete policy options through dialogues and public debates Key Activities. There are four major activities in project implementation which represents the key factors to improving the quality of life of indigenous communities in Dansolihon. (1) Land Tenure Improvement. It was primarily concerned with the increasing the access to resources, particularly land of indigenous farmers through legally recognized stewardship. (2) Productivity Enhancement. Access to resources have to matched with enhanced management capacity. To fully benefit from land stewardship, capacity building activities were conducted based on assessed needs of the community and through participatory processes. (3) Health Improvement. As a poverty alleviation measure, the project focused increasing access to health services by improving the skills and knowledge of local health workers and by maximizing the available services from nearby institutions. (4) Policy Studies and Dialogues. Enabling policy environment is critical to sustain current initiatives particularly the initiatives on agrarian reform, environmental protection and sustainable agricultural practices. Hence, the project involved careful documentation study and reporting as a support materials for local and national policy advocacy.
Result/Effect	1. Land Tenure Improvement - 196 farmers in four Indigenous People communities were awarded by CBFMAs/CSCs covering 1,055 has.; - Strengthened farmers organization through helping them formulate vision-mission-goals, organizational plans and training 25 farmer leaders in 5 communities on leadership, planning, advocacy and gender;

	- Trained 150 farmers in n5 communities on ISF, value formation, ecologically sustainable development and gender - Trained 25 women on leadership and management 2. Productivity Enhancement - 169 farmers trained on SA practices and technologies - 47 farmers trained on agroforestry & livestock raising - 25 farmers trained on honeybee production - demonstration farms (10 hectares) established and fully contoured in the four communities 3. Provision of basic Health Services - Gathered baseline data on health situation of communities - 15 female health workers from 3 sitios completed and passed the training course - 306 residents from 6 sitios received health services - Established 4 community herbal gardens; 1.5 has.@ - 8 sanitary latrines constructed 4. Policy Studies and Dialogues - 4 case studies on Integrated Social Forestry; Agrarian Reform; Illegal Logging, and; Health Training - 160 farmers joined Task Force Macajalar (Multi-sectoral group on Environmental) - Supported environmental campaign on illegal logging - Video Documentary on Agrarian Reform Initiatives in Cagayan de Oro
Other	Indigenous people/communities; Agrarian Reform; Community Health; Sustainable Agriculture

Relevant Dates

Relevant Contacts

- Practice Owner	Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC)
- Practice Recorder	Asian NGO Coalition for Agrarian Reform and Rural Development - (ANGOC)
- Responsible	Asian NGO Coalition for Agrarian Reform and Rural Development - (ANGOC)

General Classification

Physical Environment:

Land:	Soils
Water:	Surface Water

Biological Environment:

Crops:	Fruits and Nuts, Vegetables
Animals:	Mammals

Practice / Technology Specific Classification

Practices / Technologies:

Themes:	Animal Production, Crop Production, Land & Water Management, Land Rights, Technology Development, Community Forestry, Health
Types of Intervention:	Capacity Builing / Training, Policy Advocacy / Lobbying, Technology Transfer / Extension / Public Awareness, Increased Access to Resources

Data Entry: Aquilina Galang
Entry Date: 8/28/2003 12:21:00 AM
Last Modification Date: 8/30/2003 6:56:00 AM
Focal Point: OFP - Asian NGO Coalition for Agrarian Reform and Rural Development
Practice Viewed: 8 times

(Source: http://www.intersard.org/home/home.htm)

Annex 5. Rupes & PES

Watershed protection
We pay a heavy price for degradation of Asia's upland watersheds. Today, a fifth of the earth lacks safe drinking water, and half lacks proper sanitation.
Flooding leaves thousands of people dead, and hundreds of thousands homeless, every year.
Property destruction costs billions of dollars.
Siltation of hydropower reservoirs makes electricity less reliable, and more expensive. Nutrient pollution threatens the fish, animals, and plants of delicate aquatic ecosystems, and the quality of water that we drink and use for sanitation.
Van Noordwijk says,"Forests have three major functions in maintaining healthy watersheds.
"First, forest soils have a high rate of water infiltration, so forests help even out the flow of water in rivers and streams. Forests also provide a relatively slow drainage system, with lots of temporary storage of water on its way to rivers."
But we don't need full forest cover to take advantage of these functions, van Noordwijk points out."Farmers can grow trees, along with crops, on their farms and the world will have similar benefits."
Clearly, guardians of the watersheds that prevent erosion and flooding, and that ensure
abundant and clean water for drinking, sanitation, irrigation, and power, should be rewarded.
Upland communities can market watershed protection through services such as better forest management and protection, and reforestation.

Commodities to market watershed protection include:
• *Water quality credits*. Beneficiaries of reduced sediments, chemicals, and nutrients in water may pay the upland stewards with water quality credits through which to improve the watersheds and thus, upland people's own livelihoods.
• *Watershed protection contracts*. Set payments may be negotiated between watershed
protectors and downstream beneficiaries such as hydroelectric plants, water districts, and
irrigation systems.
• *Salinity credits*. In areas where excessive salt in the soil is a problem, as in much of Australia, the planting of trees lowers water tables and thus, reduces salinization of surface soils through evaporation.This decreases salinity in runoff water, benefiting both the uplands and the lowland areas that they serve.

The five key research and development activities of RUPES are:
 Quantifying environmental services."We can't transfer benefits as rewards until we learn, and quantify, who generates and who benefits from environmental services," Chandler says.At the RUPES action site in the Singkarak Lake watershed of West Sumatra, environmental services such as reforestation that will help rehabilitate land around the lake are being identified and measured, along with constraints to their implementation.
 Developing environmental service agreements.
No single reward mechanism can meet all situations. "That's why we're studying an array of mechanisms to reward the transfer of environmental benefits," Chandler points out.That includes land tenure rights, distribution of taxes on water use, reforestation programs, and direct payments.
 Supporting an enabling environment."We're identifying, and will address, constraints to the transfer of rewards, including inadequate political will, legal support, and funding," Chandler says.
 **Raising awareness of the value of environmental
services**. Understanding of the benefits must be circulated widely. In 2003 alone, RUPES has participated in 17 national and international fora on strategies for marketing of environmental services and pro-poor development. RUPES is a member of the Katoomba Group, an international nonprofit organization that is dedicated to advancing markets for environmental services provided by forested areas such as watershed protection, biodiversity habitat, and carbon storage.
 Forming effective partnerships. "A strong consortium of research and development partners is being developed to formulate and broker agreements on environmental services," Chandler says.

Source: http://www.worldagroforestry.org/sea

**A synopsis of the PES learning exercise:
Gaining momentum and moving forward**

(Chun K. Lai, October 2004)

Background
Since July 2004, key Ford Foundation grantees and partners in Indonesia, South Africa and Kenya have been engaging in a stimulating one-year learning exercise on payments for environmental services (PES) with equity, funded by the Foundation and with coordination and facilitation support from RECOFTC. This learning exercise builds upon earlier Foundation-supported work in the Americas, as well as the EDAG-sponsored PES workshop in Yunnan, China, in October 2003.

Though three interlinked grants, the following NGO partners are spearheading the work in their respective countries/regions:

• *RMI – The Indonesian Institute for Forest and Environment*, based in Bogor
• *ResourceAfrica*, based in Pretoria, South Africa, with outreach to Zimbabwe, Mozambique and other countries
• *Bureau for Environmental Analysis (BEA) International*, based in Nairobi, Kenya, with outreach to Tanzania, Uganda and other countries

The RECOFTC consultant assisting this learning exercise has traveled to Indonesia, South Africa and Kenya for partner consultations and field visits. The African trip included productive cross-visits by RA and BEA colleagues to each other's country.

Emerging themes and cases
Based on these preliminary interactions and findings, an "interim learning report" was complied and widely distributed in September 2004. Within the framework of this particular learning process, priority themes and cases, such as the following, are emerging in each country:

- *Indonesia*: Gaining recognition and securing land tenure as a reward for conservation efforts by upland communities in the Mount Halimun National Park vicinity; Water levy to be paid by urban consumers and transferred through a community foundation to upland communities living near springs in West Lombok (potentially US$45,000/month can be generated through this scheme).

- *South Africa*: Community-based ecotourism development linked to social mobilization, capacity building and tenure provision through the Communal Land Rights Act in areas outside of Kruger and other National Parks; Water issues in terms of quantity and quality, rural-urban interface, and transboundary aspects.

- *Kenya*: Exploring carbon offset markets and arrangements that could potentially benefit communities, with emphasis on community and social preparation and capacity building in terms of: establishing community tree nurseries; matching of appropriate tree species, sites and markets; and developing institutional mechanisms for managing and allocating funds.

Emerging community-based PES model
In all three countries, partners have embarked on a process of developing selected case studies to document PES experiences, analyze the mechanisms and arrangements being tested, and capture key issues and lessons learned to date.

These cases are intended to contribute to the better articulation and understanding of an emerging *community-based PES model*.

Next steps
The initial explorations by this PES learning exercise point towards potentially useful and fruitful collaboration with several related initiatives and partners, including: the RUPES work supported by IFAD/ICRAF, the market mechanisms for watershed services work supported by DFID/IIED, the PRISMA work on compensation schemes in the Americas, the Forest Trends/Katoomba Group ecosystems services work, and Foundation-supported work in Mexico/Central America, Brazil and the United States.

The IUCN World Conservation Forum, to be held 18-20 November 2004 in Bangkok, will afford an exciting and unique opportunity to bring together some 30 partners working on the aforementioned initiatives on payments, rewards or compensation for environmental services.

An informal pre-WCF meeting on 17 November is being organized for these partners. This event will be highly beneficial in terms of networking, probing emerging issues, and preparing ourselves for the WCF, particularly the Global Synthesis Workshop on *Ecosystems for sale in an unequal world*, to be held on 19 November.

After the WCF, eight African PES colleagues from South Africa, Kenya, Tanzania and Uganda will continue to Indonesia to join partners there for a PES study tour highlighting the community and field experiences in Halimun, West Java, and Lombok, West Nusa Tenggara.

To capture and synthesize the outcomes from the learning exercise, a series of workshop activities are planned during the first half of 2005:

- National workshops in Kenya (January), Indonesia (March) and South Africa (May/June) to review the draft case studies and integrate country experiences and perspectives for sharing at the final synthesis workshop. The South Africa national workshop is planned to be held after the synthesis workshop in order to utilize and benefit from those materials and outcomes.

- A final synthesis workshop to be held in South Africa (April/May) to bring together some of the key partners from the three countries involved to share, compare and analyze their experiences, case studies and findings, as well as to chart a future course of action regarding PES work. Based on the activities, outcomes and findings from this process, a final learning paper will be jointly compiled by the end of June 2005, and widely circulated to all interested parties.

Source: Available from RECOFTC.

Annex 6. Additional Sources and Initiatives

In this appendix, some of the internet sources consulted during the preparation of the report are presented, with brief descriptions. The reason for presenting them here, is that I found many of them inspirational and had originally planned to analyze these more thoroughly so as to draw lessons for the analysis and recommendations for WSMC's knowledge management activities. Time did not allow for that. The selected sources are therefore presented here, for reference by readers who would be interested in examples, lessons or good practices in:

1) Other NRM initiatives in LMB;
2) Web supported or based Information and Knowledge Systems;
3) Best Practices;
4) Case Studies and Change Management
5) Knowledge Management and Networks
6) Metadata.

1) Other NRM initiatives in LMB

CGIAR's Participatory Upland R&D (Laos and Vietnam)	The project "Participatory Research for Development in the Uplands" (PRDU) is a joint effort between CIAT and the International Potato Center (CIP, its Spanish acronym). It will work alongside the International Fund for Agricultural Development (IFAD) with five of its investment projects operating in China, Laos, and Vietnam. Its overall goal is to improve the sustainability of livelihoods of resource-poor farmers working steep upland areas by introducing technical innovations built on indigenous knowledge. It also aims to demonstrate institutional innovations that would facilitate development. Focus sites will be selected within each project area for later training of staff in IFAD projects, and to disseminate and adapt emerging technologies. (http://www.ciat.cgiar.org/asia/communities_watersheds.htm)
CGIAR's Water and Food Program	Goal is to increase the productivity of water used for agriculture, leaving more water for other users and the environment - getting more crop per drop. The CGIAR Challenge Program on Water and Food approaches this challenge from a research perspective. (http://www.waterforfood.org/)
CGIAR's Integrated NRM Program	INRM can be defined as the responsible and broad-based management of the land, water, forest and biological resources base--including genes--needed to sustain agricultural productivity and avert degradation of potential productivity. This Web site is created to facilitate sharing of experiences, approaches and results among scientists working on INRM issues in the CGIAR and partner institutions. (http://www.inrm.cgiar.org/index.htm)
ICRAF in LMB	The mission of Southeast Asia regional programme is to reduce poverty and sustain the natural resource base in the uplands of Southeast Asia through improved agroforestry systems. Strategic research remains focused on **Indonesia** (humid rainforest margins), **the Philippines** (monsoonal hillside agriculture) and **Thailand** (northern tropics landscape mosaics). In **Vietnam** (high incidence of rural poverty), **Laos** (upland agriculture in forest margins) and the subhumid areas of eastern Indonesia we work primarily on capacity building and knowledge sharing. A new programme in China will combine capacity building with exchange, based on China's long and diverse experience in agroforestry. Collegial exchange characterizes our relationships in Malaysia (focusing on tree–crop experience) and Cambodia. (http://www.worldagroforestry.org/sea/about/index.asp)
Carerere and Seila in Cambodia	CARERE(2)/SEILA fosters the formation of Village Development Committees (VDCs), Commune Development Committees (CDCs) as well as Provincial Rural Development Committees (PRDCs), which serve as participatory and decision making frameworks that extend from village to commune to province level. These are an essential means of enabling the Cambodian people to plan and make decisions that affect their lives. (http://mirror.undp.org/carere/Layer1.CARERE-SEILA/carere-brief1997.htm) Related institutions at all levels strengthened and effectively implementing the decentralised and deconcentrated systems. Efficient and effective services and investments provided for local development. Contribute to the improvement of policy and regulations for decentralization and deconcentration and poverty alleviation. (http://www.seila.gov.kh/indexs.asp?language=kh&pgid=1) ANALYSIS: MAINSTREAMING NREM WITH COMMUNE COUNCILS AND PLUP TOOLS - FINAL REPORT Melissa Marschke *April 2004* (http://www.seila.gov.kh/docs/NREM/Nrem_apr2004/index23.html)
IDRC CB NRM	The CBNRM program deals with resource degradation and rural poverty in

	mountainous and coastal areas of South and Southeast Asia by promoting research for development innovations to improve the productivity and sustainability of local resource use. These innovations can be technical, such as intensifying shifting cultivation or improving aquaculture. They can also be institutional or policy-focused. The participation and leadership of local people is essential to CBNRM's approach, as innovations must be built on existing local knowledge and practice, rather than imposed from outside. It also requires recognition of the heterogeneity and multiple interests of different community members and outside resource users. (http://web.idrc.ca/en/ev-31036-201-1-DO_TOPIC.html)
Lao Swedish Upland Program	The **Lao - Swedish Upland Agriculture and Forestry Program** is a partnership between the National Agriculture and Forestry Research Institute (NAFRI) and Sida to strengthen the capacity and quality of agriculture and natural resource research in Lao PDR. (http://www.nafri.org.la/LSUAFRP_CD%20(E)/intro.htm)
OD and Management Training (MDF, Hanoi)	Our office in Hanoi, Vietnam, offers a wide-range of open-entry training courses: Project and Programme Management course (PMC); Institutional Development/ Organisational Strengthening course (ID/OS); Management Skills course (MS) Planning, Budgeting and Expenditure Monitoring course (PLANBUD); Organisational Development for Advisors and Consultants (ODAC) We provide consulting services in the following areas: Project Cycle Management services, including: Project identification and formulation; (Pre)Feasibility studies; Interim management; Monitoring systems design; Evaluations and reviews; Organisational Development services, including: Organisation analysis and assessment (SWOT, PODIA); Strategy design and strategy planning; Facilitating change; ISOA, sector-wide approaches; SME development Human Resource Management services, including: Individual coaching; HRM systems development; Conflict mediation; Training of trainers (ToT) MDF Indochina's training and consulting services ensure maximum participation through interactive methods, thus creating practical and applicable results and ownership. MDF Indochina, at the requests of various clients, designed and delivered tailor-made courses as well. (http://www.mdf.nl/en/display_profile.php?dm=ic&sub=1)
Antonio P. Contreras, Ph.D. Associate Professor Department of Political Science De La Salle University Manila, Philippines	ROLE OF CIVIL SOCIETIES IN TRANSBOUNDARY COMMON PROPERTY RESOURCE GOVERNANCE IN SOUTHEAST ASIA This paper presents the potentials of civil-society based processes and structures in fostering regional and global cooperation. This is located in the context of the environmental domain, particularly in the security implications of governing the forests in Southeast Asia, as a common property resource. It explores the role which civil society plays in social transformation to serve as impetus for policy change not only within states, but also across and between states. (source: available from RECOFTC)
Vietnam Working Group on Agr. And NRM	**The VUFO-NGO Resource Centre Working Group on Sustainable Agriculture and Natural Resources Management (SANRM WG)** Despite outstanding achievements in Vietnam's economic development since the "doi moi" strategy (started in 1986), some problems and challenges remain. Currently, " 77% of the population and 90% of the poor live in rural areas. Seventy % of the income of rural inhabitants comes from agricultural activities. Additional challenges are high poverty among ethnic minority groups, rural environment degradation, loss of native forests and biodiversity, and less inclusion of NR dependent rural poor farmers. For these reasons, agriculture and rural development are crucial components of the Vietnam's Government's Comprehensive Poverty Reduction and Growth Strategy (CPRGS). With the view to contributing to the improvement of and inclusion to rural poor livelihood and better management of natural resources, the VUFO-NGO Resource Centre Working Group on Sustainable Agriculture and Natural Resources Management (SANRM WG) was first established in 1998. This is a continuation of a former working group on "agroforestry and sustainable development". The objective of the newly established WG was to increase knowledge of participants of successful experiences in and outside Vietnam and to contribute to the promotion and debate on SANRM in Vietnam. (http://www.mekonginfo.org/mrc_en/contact.nsf/0/EDFE2AC318386C7047256CE70027B21F/$FILE/about_sanrm001_en.html)
Vietnam Agr and Rural Development International	**Overall objective of International Support Group** To support the Ministry of Agriculture and Rural Development generally and the

Support Group	International Cooperation Department particularly in: • Coordinating with international donors, including NGOs on up-coming projects and programmes • Building partnerships • Fostering Vietnamese ownership of foreign supported projects; and • Act as a facilitating mechanism in policy dialogue and coordination at vertical asnd horizontal levels (donors, ministries and provinces). (http://www.isgmard.org.vn/)
Vietnam Administrative Reform in Forestry Project	The role of REFAS is that of a "change agent" who identifies, trains and enables decision-makers and key actors involved in the reform process at central and local levels. The project assists ongoing and new change efforts through direct contributions to the revision and implementation of MARD's management systems, organisational restructuring and operational procedures, public administration and forest sector reform strategies and legal framework. The project team also supports the continuing development of existing education and training systems and strengthens MARD's capacity to co-ordinate and document donor activities in agriculture and rural development. (http://www.mard-refas.org.vn/en/Aboutus/Background.asp)
Oxfam Mekong Initiative	The Oxfam Mekong Initiative (OMI) :**Oxfam** is an international development agency which works with local partners to find lasting solutions to poverty and related injustice around the world. **The Oxfam Mekong Initiative** is a joint effort of the eight Oxfams working in the six riparian states of the Mekong River. Together with its partners, Oxfam is working to promote the interests of the poor throughout the Mekong Region during a time of extensive and rapid development, which is complex in nature and often includes difficult trans-boundary issues. (http://www.oxfammekong.org/text_f/index.html)
IIRR in LMB & writeshops	In the Mekong River region, IIRR's central program strategy is to pursue a collaborative program with NGOs, civil society organizations, research institutions and government agencies with IIRR working as their partner at organizational and community levels. The approach aims to build capacities of government service providers, partner NGOs and communities -- a three-pronged approach. IIRR aims to focus on (1) community-based natural resource management, or CBNRM (i.e., agriculture, aquaculture, water resources, and forestry) and (2) health and nutrition, paying particular importance to the integration of links between theses two critical development themes. In the Publications and Communication, IIRR works with communities and development partners to document field-based experiences. The Institute has produced over 50 publications during the last decade on topics as diverse as aquaculture, sustainable agriculture, food security and maternal and child health. IIRR pioneered the 'writeshop' approach, which is a participatory and quick way of producing high impact publications. IIRR publications are widely used by extension workers and community members, by university teachers and scholars, government officials, planners and NGO workers. IIRR does not copyright its publications. (http://www.iirr.org/index.htm)
Economy & Environment Program	**EEPSEA: Economy and Environment Program for Southeast Asia** Established in 1993, EEPSEA supports training and research in environmental & resource economics. It uses a networking approach to provide financial and technical support to researchers in its ten member countries. The network meets in May and November of each year. (http://www.eepsea.org/en/ev-7199-201-1-DO_TOPIC.html)
Mekong Info Organizations Directory	Most (or all ?) of the organizations mentioned here and many others can also be found in the Mekong Info's directory. (http://www.mekonginfo.org/mrc_en/contact.nsf/OrgsByName?OpenView)

2) Information and knowledge systems

US EPA watershed approaches for tribes	This publication explains EPA's vision for watershed approaches and builds upon the Office of Water *Watershed Protection Approach Framework*, endorsed by senior EPA managers in 1991. It emphasizes the role EPA envisions for states and tribes. It also reflects the high priority that individual Office of Water programs have put on developing and supporting comprehensive state and tribal watershed approach strategies that actively involve public and private interests at all levels to achieve environmental protection. (http://www.epa.gov/owow/watershed/framework/ch1.html)
Knowledge source for adaptive management	The structure of this site has developed through the course of my work on the development of collaborative learning approaches that help communities to identify and adopt more sustainable natural resource management practices. This site provides an annotated guide to a range of on-line resources providing papers, handbooks, tips, theory and techniques in a number of related, skill fields. It also shows how the application of these different skills are interlinked in practice. Although the emphasis of this site is on improving community participation within natural resource management (biodiversity enhancement, conservation, riparian management, agriculture, etc), the approaches outlined here are also useful for those working in a diverse range of development areas such as rural development, health, housing, etc. (http://nrm.massey.ac.nz/changelinks)
Taxonomy for watershed web sites	Links to watershed management web sites, thematically organized http://www.forrex.org/programs/wmlinks.asp#index
On line training in watershed management	This Web site offers a variety of self-paced training modules that represent a basic and broad introduction to the watershed management field. The modules are organized by the six themes listed above. Modules vary in the time they to complete, from ½ hour to 2 hours. Fifteen of them (marked with asterisks * below) are the core modules for the Watershed Academy Certificate Program. (http://www.epa.gov/watertrain/#management)
Example of Tomoye Simplify (on line CoP) application to PA under development	The Protected Area Learning Network (PALNet) will be an interactive, web-based knowledge management tool for protected area managers and stakeholders. Those engaged in the network will contribute to and benefit from lessons learned regarding adaptation of protected area policies, strategies and practices to global change. These case studies will be distilled from existing literature and a set of field learning sites. The initial learning sites will also be the focus of workshops to train stakeholders in the use of the mechanism and will be expanded over time as a global community is encouraged to participate. PALNet will promote peer-based learning interactions across regions and ecosystem types with a particular emphasis on South - South exchange. In addition it will be designed and managed to foster the use of adaptive management strategies which will secure biodiversity in situ, where it otherwise would be lost to the inexorable forces of change. The PALNet will be compatible with and supportive of other conservation networks, as well as the Convention on Biological Diversity's Clearing House Mechanism (CHM). However, the audience and purpose of this mechanism is unique. This tool seeks to actively engage protected area managers globally and promote knowledge exchange to foster experimentation with adaptive management techniques. This activity is different than, yet supportive of, other ongoing efforts to protect biodiversity, especially those of CBD States Party regarding Article 8 on In Situ Conservation. (http://www.parksnet.org/palnet_english/About%20PALnet/Mission.htm)
Participatory GIS	**PPgis.net**, the electronic forum on participatory use of geo-spatial information systems and technologies. This forum serves as global avenue for discussing issues, share experiences and good practices related to community mapping, participatory mapping, counter mapping, Public Participation GIS (PPGIS), Participatory GIS (PGIS or P-GIS), Community Integrated (CiGIS), Mobile Interactive (MiGIS) and other geo-spatial information technologies and system used in participatory settings to support integrated conservation and development, sustainable natural resource management and customary property rights in developing countries and First Nations (http://www.iapad.org/ppgis/)
Lessons learned from PAs in LMB	**Examining approaches for integrating protected area management with socio-economic planning and development in Cambodia, Lao PDR, Thailand and Vietnam.** The Review of Protected Areas and Development (PAD Review) examines the growing

	tensions between economic and conservation objectives in the four countries of the lower Mekong River region. It identifies the many development benefits flowing from protected areas and the need to reflect them in the plans and budgets of forestry, agriculture, energy, tourism, fisheries and other key economic sectors. The lessons of more than a decade of protected area management experience in the region are related to new and innovative approaches elsewhere in the world. (http://www.mekong-protected-areas.org/index.htm)
E-letter with PES news	The FLOWS bulletin provides a monthly review of selected topics that pertain to assessment of the effectiveness of payment arrangements for watershed services and lessons being learned, highlighting: - Gaps between theory and practice, - The science and policy interface, - Relevant information from diverse areas of knowledge, - Multiple perspectives, and - Rules-of-Thumb, as revealed by current practices. (http://www.flowsonline.net)
IFAD Knowledge sharing in rural development	ENRAP (Knowledge Networking for Rural Development in Asia/Pacific Region), an IFAD-IDRC collaboration, leverages a growing body of useful information generated by development projects and made available on the Internet. The program, now in its second phase and running until the end of 2005, is designed to bring the benefits of accessing and sharing global information resources to IFAD-supported rural development projects in the Asia/Pacific region. Effective use of Internet and electronic communication by project staff and, ultimately, by project communities will contribute to the empowerment of rural people and help them better address their development objectives. ENRAP's goal is to help develop skills to access, manage and share knowledge relevant to IFAD project objectives and implementation, in collaboration with selected groups of IFAD projects and local specialists. Potential users of the knowledge sharing system include project staff and their partners who work directly with rural communities and help make the knowledge available at the grassroots level. ENRAP investigates strategies, processes, methods and technologies to support rural communication and knowledge networking, and develops recommendations for future activities. This project will foster a culture for knowledge sharing and learning amongst all the stakeholders of IFAD projects. ENRAP initiates research and development in the area of knowledge networking and Internet applications at the local, national and international levels. Special focus is on methods and practical solutions fostering participation at the grassroots level. In practical terms, this means close collaboration with local organizations and consultations with potential users. Local electronic newsletters, agricultural market information dissemination and shared electronic libraries are examples of ENRAP-supported activities. ENRAP pursues a participatory communications approach. It tries to engage all stakeholders in decision-making and collecting materials to be shared electronically and in traditional ways. The process of designing and implementing new applications is based on field visits, collective needs analysis, and local technical expertise. The central ENRAP Website (www.enrap.org) provides an electronic space for collaborative work and exchange of information. It allows for interactive database access, posting of documents and photographs in native formats by all users, conducting electronic conferences, and contributing web pages on line. ENRAP includes selected groups of projects in China, India, Laos, Nepal, Pakistan, Philippines, Sri Lanka and Vietnam. Other countries not receiving direct assistance from ENRAP can benefit from free training materials, documents and databases available on the ENRAP website, technical advice, and allocation of working space on the ENRAP website. It is expected that in the future all IFAD projects in Asia/Pacific will participate in ENRAP activities and contribute to the knowledge sharing system.
A Best Practice in Taxonomy for Internet sources	The Geo-Guide is an Internet-based subject gateway to scholarly relevant information in earth science, geography and mining. Resources are described and evaluated with a set of Dublin Core metadata. http://www.geo-guide.de/index.html
Quality Management of Internet Sites	**Information Quality WWW Virtual Library - The Internet Guide to Construction of Quality Online Resources** This set of pages keeps track of online resources relevant for evaluation, development and administration of high quality factual/scholarly networked information systems. http://www.ciolek.com/WWWVL-InfoQuality.html
Information Management Training	Effective information management is increasingly critical in the digital era, comprising a range of issues involving standards, smart work practices and software. FAO has initiated a partnership-based e-learning initiative known as the Information Management Resource Kit (IMARK) which will train individuals in the effective

	management of agricultural information. http://www.fao.org/gil/imark/index_en.htm
UNESCO Bangkok's Information Gateway	The Information Programmes and Services (IPS) serves as a gateway to information resources on education, science and social sciences, culture, and communication/ informatics. To serve the information needs of its users, the IPS maintains a wealth of resources, which include the following: **Bibliographic database** of around 20,000 records that are searchable online and which form part of the IPS' bibliographic collection of around 60,000 books, periodicals and IEC materials An **electronic virtual library** consisting of over 1,000 links to bibliographic, full text and statistical databases in education, economics, population, social, science, culture, health, and related areas; libraries and archives; electronic journals and periodicals; reference materials such as atlases, encyclopedias, dictionaries and maps; and Internet references **Search of the month** proactively provides you with a ready bibliographic search results on various topics of interest for each month **Portals** or one-stop knowledge shop of extensive information resources dealing with education, eLearning, use of information and communication technology in teacher training; science and technology, social and development issues and the like **Webcast** connects the user to hundreds of links of selected Websites on all topics of interest dealing with education, social and human sciences, culture, communications and information technologies, and related areas. **Electronic articles** derived from periodicals and journals as well as Websites aimed at alerting the users of the most current information on a wide range of topics dealing with UNESCO's work A selection of key **electronic publications** from among the many published by various units of UNESCO Bangkok, transformed into PDF files for easy access and download **Ordering for publications** site contains UNESCO Bangkok publications which are either priced or free of charge supplied in hard copies (http://www.unescobkk.org/ips/index.htm)
Agriculture and Forestry Gateway to Internet Resources	AgriFor is a gateway to evaluated, quality Internet resources in agriculture, food and forestry, aimed at students, researchers, academics and practitioners in agriculture, food or forestry. AgriFor is created by a core team of information specialists and subject experts based at the University of Nottingham Greenfield Medical Library, in partnership with key organisations throughout the UK and further afield. (http://agrifor.ac.uk/about/)
Asian Resource Center for Decentralization	Across the Asian region local governance continues to evolve towards a more responsive, enabling and participatory state. The varied experiences leading to such enabling conditions presents a wealth of information from which neighboring countries could learn from. Asian Resource Center for Decentralization serves as a resource center for information on decentralization and local governance experiences. It has a growing collection of resources from countries in the Asia-Pacific region, Europe and Africa. Information sharing and dissemination is constantly advanced through its network of public and private institutions and individuals. ARCD is based at the Center for Local and Regional Governance (CLRG) of the National College of Public Administration and Governance, University of the Philippines. (http://www.decentralization.ws/aboutarcd.asp)
ISI Web of Knowledge (quality controlled gateway)	**Thomson ISI**, a business of The Thomson Corporation, has been an established leader in providing access to high-value, essential information for researchers and scholars worldwide for over 45 years. The goal of ISI® is to increase the impact of research by empowering researchers to accelerate discovery. ISI provides integrated information solutions delivered by the most innovative technologies. We partner with our clients, as well as industry leaders to deliver on this promise. Our most recent development - *ISI Web of Knowledge*[SM] - is the single environment from which researchers can access, analyze, and manage information. *ISI Web of Knowledge* facilitates discovery by offering seamless navigation to the highest quality content, evaluation tools, and bibliographic management products. The platform provides innovative search tools for cross-content and Web document searching, and is equipped with a sophisticated, robust linking gateway. The *ISI Web of Knowledge* content is multidisciplinary, and supports research conducted at academic, corporate, government, and not-for-profit organizations

	worldwide. http://www.isinet.com/aboutus/
International Open Source Network	Information technology is changing the way governments, businesses and educational institutions provide services. It has revolutionized networks across borders and cultures, promoting new opportunities for economic and social development. However, there are barriers to entry for new users as access to ICT is severely limited in developing countries due to high costs. Developing countries have to contend with priorities such as health care, food, shelter, electricity and basic economic priorities amidst other challenges: expensive communication infrastructure, applications and computer hardware.Free/Open Source Software (FOSS) presents itself as an access solution for developing countries. It represents an opportunity for these countries to adopt affordable software and solutions toward bridging the Digital Divide. (http://www.iosn.net/about/)
Gateway Env. Sustainability	Eco-Portal - The Environmental Sustainability.Info Source;An Information Gateway Empowering the Movement for Environmental Sustainability (http://www.environmentalsustainability.info/)
Best Environmental Directories	Selection of best internet environmental directories (list of lists), for more than 650 environmental subjects. (http://www.ulb.ac.be/ceese/meta/cds.html)
Development Gateway	ELDIS is a gateway to information on development issues, providing free and easy access to wide range of high quality online resources. It provides summaries and links to online documents. ELDIS offers a directory of websites, databases, library catalogues and email discussion lists. Resource guides offer easy access to information on a wide range of subjects. (http://www.eldis.org)
Rural Development Knowledge System	IFAD Rural Poverty Knowledgebase with: RURAL POVERTY REPORT; useful links; A GUIDE FOR PROJECT M&E; RURAL FINANCE; GENDER; FOOD SECURITY & NUTRITION; LIVESTOCK & RANGELAND; SUSTAINABLE LIVELIHOODS APPROACH; GRANT PROGRAMME (http://www.ifad.org/rural/index.htm)

3) Best Practices

CB NRM Best Practice Criteria	**Analysis of best practice examples of CBNRM projects in Tanzania** Alcorn, J.; Kajuni, A.; Winterbottom, B. / USAID Development Experience Clearinghouse (DEC) / Development Experience System (DEXS) , 2002. This paper reports on an assessment made of best practice CBNRM projects in Tanzania. Research and reverie of literature and data identified projects to visit that reportedly met the following criteria: a/ reported to have stimulated or contributed to positive outcomes related to the three target areas (environment, economic, governance) and therefore likely to be good examples or illustrations of "best practices" b/activities with proven experience, over at least several years ; activities that have been supported by a range of donors and development assistance mechanisms (http://www.eldis.org/static/DOC11443.htm)
Web based sharing of watershed management practices	The purpose of this web site is to help determine more effective extension communication methods over the web and effectively foster information exchange regarding water quality and best management practices in selected agricultural watersheds in Michigan. (http://www.waternet.msu.edu/)
Web sharing of water quality data	BDAT contains environmental data concerning the San Francisco Bay-Delta and provides public access to that data. Over fifty organizations contribute data voluntarily to this project. The database includes biological, water quality, and meteorological data. These can be used to gauge the health of the estuary and to manage water and environmental resources. (http://baydelta.ca.gov/index.html)
Business best practice approach	To us, "best practices" are documented strategies and tactics employed by highly admired companies. (http://www3.best-in class.com/bestp/domrep.nsf/ bb282ab5b9f8fa6d85256dd6006b3e81/a37cd574aaa03a3185256e150069354b!OpenDocument)
Unesco's best practices in a range of domains	While poverty and social exclusion represent common problems to policy makers in both poor and rich countries, new initiatives have been developed to combat these problems, initiatives which merit being called "Best Practices". (http://www.unesco.org/most/bphome.htm#1)
Clearinghouse of Participatory Management	The Participatory Management Clearinghouse (PMC) is a joint initiative of the Bureau of the Convention on Wetlands (Ramsar), IUCN (The World Conservation Union), and SIDA (The Swedish International Development Cooperation). It has been set up to facilitate the sharing of information concerning participatory management of natural resources, while disseminating Ramsar and IUCN field experiences on that topic. Classified thematically by ecosystems, regions, or themes, the posted documents, specific projects and case studies cover issues such as biodiversity and traditional knowledge, gender, water, equitable sharing, protected areas, or indigenous peoples. (http://www.pmcnet.org/indexflash.aspx)
ICIMOD's Best Practices	ICIMOD promotes the replication and dissemination of innovative, low-cost, local resource-based, productive options and appropriate technologies for the sustainable development of mountain areas. Best practices and appropriate technologies are management and cultural practices that allow people to get the most beneficial use out of the land and other available natural resources in a sustainable manner. Following are some action-oriented research-cum-dissemination/ training activities which have had various technological successes in the often harsh and marginal environments of the Hindu Kush-Himalayan region and beyond. Some are in the testing and demonstration phase and others are already a part of ICIMOD's programmes. Spreading awareness about these experiences has been a key achievement of ICIMOD. (http://www.icimod.org/sus_options/bpmenu.htm#bp)
US Environmental Protection Agency's 10 Lessons Learned	EPA, in partnership with many others, has been pursuing a watershed approach to protecting our lakes, rivers, wetlands, estuaries, and streams. Watershed Lessons Learned is an attempt to identify the top important lessons have been learned by us and our many partners that are worth sharing and present them in one place. The target audience for this web site are "watershed practitioners and those who support them." (http://www.epa.gov/owow/lessons/)
EPA's List of WSM Tools	Watershed Tools Directory: A Collection of Watershed Tools (http://www.epa.gov/OWOW/watershed/tools/)
EPA's Forestry Best Management Practices	Watershed Academy's module on forestry best management practices (BMPs) in watersheds. This module, along with similar modules on agriculture and urban management, is about controlling impacts from common land use activities that

	often affect watersheds, water quality, and the condition of aquatic ecosystems. (http://www.epa.gov/watertrain/forestry/)
BEEP: Best Practices in a Knowledge Framework ?	BEEP is a European project, part of the IST programme aiming to uncover and promote best practice in **four** key business and social areas (domains) that will lead to Europe enhancing its position globally. The four domains are: **Work and Skills** (Domain 1); **Digital SMEs** (Domain 2); **Social Inclusion** (Domain 3) ; **Regional Cohesion** (Domain 4) (http://www.beep-eu.org/Beep/HTML/home-fs.htm)

4) Case Studies and Change Management

Case Study Methodology	**Application of a Case Study Methodology by Winston Tellis** *The Qualitative Report*, Volume 3, Number 3, September, 1997 The methodology will follow the recommendation of Yin (1994) and has four stages: 1. Design the case study, 2. Conduct the case study, 3. Analyze the case study evidence, and 4. Develop the conclusions, recommendations and implications. The article begins with an introduction, that includes some of the background information that is intended to inform the reader. Following that section, each step of the methodology will be explored in detail. Finally a summary will connect all the information in a concise manner. (http://www.nova.edu/ssss/QR/QR3-3/tellis2.html) See also: **Introduction to Case Study by Winston Tellis** *The Qualitative Report*, Volume 3, Number 2, July, 1997 (http://www.nova.edu/ssss/QR/QR3-2/tellis1.html)
Case Study Writing Guide	Case Studies This guide examines case studies, a form of qualitative descriptive research that is used to look at individuals, a small group of participants, or a group as a whole. Researchers collect data about participants using participant and direct observations, interviews, protocols, tests, examinations of records, and collections of writing samples. Starting with a definition of the case study, the guide moves to a brief history of this research method. Using several well documented case studies, the guide then looks at applications and methods including data collection and analysis. A discussion of ways to handle validity, reliability, and generalizability follows, with special attention to case studies as they are applied to composition studies. Finally, this guide examines the strengths and weaknesses of case studies. • Introduction to Case Studies • Types and Design • Conducting Case Studies • Commentary on Case Studies • Key Terms • Annotated Bibliography on Case Studies • Related Web Links (http://writing.colostate.edu/references/research/casestudy/index.cfm)
Case Studies by Community Builders	Case Studies Each section on communitybuilders.nsw includes case studies. These stories share ideas for action. They tell what people are doing and what's working, what communities have learned from their experience and how it made a difference. They provide inspiration and show what's possible. Here we bring all these stories together in a collection and it's one of the most popular site areas. Plus all these stories have been contributed by communitybuilders.nsw users. If you have a story to share please publish it to the site. It doesn't have to be long and if you can attach a photo it really adds to the story. For tips on writing a case study: Case study writing guidlines. You may like to submit your case study using the Online Form (http://www.communitybuilders.nsw.gov.au/stories/)
Change Management Best Practices	Best Practices in Change Management Report *288 companies share lessons learned* • how to effectively manage change • how to combat employee resistance • how to build executive support for your project • what teams would do differently on their next project (http://www.prosci.com/change-management_bp1.htm)
Governance Benchmarking	Comparative Analysis Model Underlying Principle Comparative Knowledge Model is one of the least-used but a highly significant model for developing country which is now gradually gaining acceptance. The model can be used for empowering people by matching cases of bad governance with those of good governance, and then analyzing the

	different aspects of bad governance and its impact on the people. The model is based on using ICT to explore information available in the public or private domain and comparing it with the known information sets. The outcome is strategic learnings and arguments, for instance, if a given amount of money can build '5' schools in village 'A' then why does the same amount of money build only '2' schools in village 'B'? Essentially, the model continuously assimilates Best Practices in the areas of governance and then uses them as benchmark to evaluate other governance practices. It then uses the result to advocate positive changes or to influence 'public' opinion on these governance practices. The comparison could be made over a time scale to get a snapshot of the past and present situation or could be used to compare the effectiveness of an intervention by comparing two similar situations. The strength of this model lies in the infinite capacity of digital networks to store varied information and retrieve and transmit it instantly across all geographical and hierarchal barriers. (http://216.197.119.113/artman/publish/gov-comparative-models.shtml)
Public Sector Change	Public Sector Organizations : Today's Innovative Leaders in Performance Management. Public Personnel Management, March, 2000 by Grote, Dick Who is coming up with the best new ideas for managing people's performance on the job? Surprisingly, some of the most innovative work in developing new approaches to performance management is being done these days by organizations in the public sector. When executives look for breakthrough thinking and best practices, their best sources frequently turn out to be state agencies and city governments, federal bureaucracies, and your local pardons and parole boards. (http://www.findarticles.com/p/articles/mi_hb257/is_200003/ai_n565469)
Public Sector Innovation Network	*The Innovation Network* is a concept that brings together the activities of international and Canadian networks working on public sector innovation. The most recent work of these networks has centred around: • creation of presentations and a half-day workshop on public service innovation • a conference and workshop of papers on government innovation held in Ottawa • the planning of eleven special issues of *The Innovation Journal* on such issues as empowering and engaging citizens, the ethics of innovation, rules innovations, and evaluation of innovations • an invitation to become a source of information for the World Bank electronic portal on government innovation. (http://www.innovation.cc/about-us/innovation-network.pdf)
Best Practices in Benchmarking Framework for Governments	**International Government Benchmarking Association™** (IGBA™) provides a forum for the exchange of performance measurements and benchmarking data for all levels of government around the world. The association is currently a free organization with fees assessed only when companies want to join specific benchmarking efforts. Membership is limited to individuals employed as regular employees of local, city, state or federal branches of government. (http://www.igba.org/)
BP for Public Sector Organizations	EFQM provides a range of networking and product/service development services to a growing community of Public Sector organisations. Many are users of the EFQM Excellence Model, a tailored version of which sets out guidelines for Public and Voluntary Sector organisations. EFQM sponsors a Improving Public Sector Performance Group, whose mission is to promote and support improvements by the use of excellence concepts in Public Sector organisations. The Performance Group's activities and membership covers the three main segments of the Public Sector, namely Education, Health, Central & Local Government. To find out more about EFQM's work in each of these areas, click on the links to our Communities of Practice. You can also use these pages to access case studies of finalists in the Public Sector category of the European Quality Award. Click on Interesting Links to find out about other sources of information on Public Sector excellence, including the Common Assessment Framework (CAF) self-assessment tool and national government initiatives. (http://www.efqm.org/model_awards/public_sector/welcome.htm)
Benchmarking by Local Government	*Local Government Benchmarking 'Sign Posting Service* Benchmarking is a powerful tool for authorities wanting to improve their

	performance by pitching themselves against the best. The Improvement and Development Agency (IDeA) and the Public Sector Benchmarking Service (PSBS) teamed up in 2001 to offer a service to help authorities do just that. The Local Government Benchmarking Sign Posting Service is a one-stop shop for those looking to improve through benchmarking. Users get access to the full range of PSBS services including online discussions, plus case study material and information on local authority networks collated by the IDeA. (http://www.benchmarking.gov.uk/localgov/signpost.asp)
Benchmarking by Communities	Community and Economic Development Through University of Illinois Extension University of Illinois Extension provides practical, research-based information and programs to help individuals, families, organizations, businesses, farms, and rural and urban communities throughout Illinois. Growth and development cannot always be measured by traditional economic indicators. The COMMUNITY DEVELOPMENT CAPACITY INDEX (CDCI) is an assessment tool that provides a framework for communities to benchmark or evaluate the impact of community development initiatives. It can be used to assess progress toward meeting community development goals by measuring change in both organizational and financial resources. (http://communitydevelopment.uiuc.edu/webworks/files/aboutced.php)

5) Knowledge Management and Networks (CoPs)

Networks and CoPs	*Verna Allee* **Knowledge Networks and Communities of Practice** Knowledge and learning have become the new strategic imperative of organizations. This article will first describe the new logic driving interest in knowledge management and then focus on how OD practitioners can participate in that strategic conversation, and support knowledge creation and sharing through building communities of practice. (http://www.odnetwork.org/odponline/vol32n4/knowledgenets.html)
Overview of issues and key references in CoPs	This Knowledge Garden is a public service of Community Intelligence Labs, a part of the global commons. Here we explore ideas that span the boundaries of multiple communities, create new knowledge together, and accelerate our knowledge flows. The Knowledge Garden is continuously seeded with thought-provoking articles, interviews, research papers, slide presentations and work-in-progress documents by the CoIL team, our friends, allies, and partners. (http://www.co-i-l.com/coil/knowledge-garden/index.shtml)
The "New Knowledge Management"	KMCI was founded in 1997 as an international professional association of KM practitioners. What attracted most of its initial founders and early members, in particular, were its plans to develop a compelling new school of KM practice inspired by complexity theory. KMCI's conceptual orientation later expanded to include organizational learning theory, systems thinking in general, and more recently, epistemology. KMCI's work eventually led to the development of a rich set of conceptual frameworks now known collectively as The New Knowledge Management (TNKM). (http://www.kmci.org/about_kmci.html)
Key KM Resources	This Knowledge Connections site aims to connect you to the best knowledge about Knowledge Management and the related themes of Virtual Working, Internet / intranet and Innovation. First launched in 1995 at an ISP's website, it moved to its current home (http://www.skyrme.com) in 1996. It was relaunched with a new design, better navigation and more content in February 2000, and upgraded to its present design in August 2002. **What's New** - Recent additions plus chronology of the development of this website. **Site Map** - Listings of all key pages section by section **Topic Index** - for Knowledge, Internet/intranet, Virtual Working and Innovation & Management. **K-Map** - A 'map' indicating knowledge sources that can help you at different parts of your journey through knowledge management. **Search Engine** - Use Verity to find specific topics from the hundreds of pages on this site. **Copyright Notice** - We encourage sharing but you must observe our conditions of copying and distribution. **Legal/Privacy** - Legal notice and privacy policy. (http://www.skyrme.com)
More Key KM Resources	The Knowledge Management Network [tm] WWW Virtual Library on Knowledge Management[tm] Global Knowledge Management Community of Practice Knowledge Management Think Tank Knowledge Management Research Papers and Portals (http://www.kmnetwork.com/)
Training Course on Knowledge Networking	Course Description This course is meant as an introduction to knowledge networking, focusing on how knowledge networking can strengthen efforts towards sustainable development around the world. Course Objectives The participants will: - understand key concepts underlying knowledge networking (knowledge management, communities of practice, knowledge networks, knowledge mapping, etc...). - be able to identify key opportunities and challenges that development organizations are facing in the process of implementing knowledge networking strategies. - be able to discuss successful knowledge networking strategies that have been used by various organizations.

	- be able to identify lessons learned from existing knowledge networking experience among development organizations. - be able to develop (or improve upon) knowledge networking strategies for their respective organizations. (http://www.knowledgefordevelopment.com/Teaching/KN/syllabus_kn.htm)
Digital Governance	The term **Digital Governance** refers to governance processes in which Information and Communications Technology (ICT) play a significant role. The role played by ICT could be wide-ranging: *in delivery and standards of governance services, to how people access such services, and the participation of people in the governance sphere*. Digital Governance uses ICT to induce changes in the delivery and standards of governance services and more importantly, in the way citizens interact and participate in the governance sphere. (http://216.197.119.113/artman/publish/concept.shtml)
Knowledge Net	The human race has entered into the new millennium. The new millennium sees ourselves moving towards a world of greater inter-connectedness-- in terms of flow of information, capital, goods and services, inter-twined economies and their globalised impacts. The force (along with the others) that is fueling this transition is **Information and Communication Technology (ICT)**. The advances in information and communication technology, are re-structuring the global social economic equation - shifting from income divide to knowledge divide. The info-technological revolution on one hand is spearheading the growth of Knowledge Societies in developed countries and has aroused much interest among the civil society, markets and the agents of change. On the other hand, more than 850 million people in developing countries are excluded from a wide range of information and knowledge. An isolated world does exist amidst the world that has over a billion mobile phone subscribers and over 500 million Internet users. The poor, especially in developing countries remain much isolated - economically, socially and culturally from the burgeoning information and progress in the arts, science and technology. (http://www.knownet.org)
Knowledge Networks, CoP & Innovation	**Knowledge Networks: Innovation through Communities of Practice. Editors, Paul Hildreth and Chris Kimble** Communities of Practice are currently attracting much interest among academics, consultants and in commercial organisations. Academic researchers are undertaking research into how CoPs can be supported, the relationships within them and how this can help support the generation of new knowledge. Similarly, consultants in the field are developing tools and techniques for supporting, coaching and facilitating CoPs, advising organisations as to how they can identify and nurture CoPs and seeking to demonstrate how organizations can benefit from them. Meanwhile, outside the Universities and Consultancies, Communities and Networks of Practice continue to grow and spread: both online through e-mail, bulletin boards and newsgroups and offline through meetings, lunches and workshops. The network of relationships that develop in a CoP, the inner motivation that drives them and the knowledge they produce, lead to the creation of an environment that is rich in creativity and innovation. CoPs can help in finding and sharing best practices and serve as engines for the development of social capital. Many organisations now regard CoPs as a vital component in their KM strategy. We hope that this book will help the reader to unlock the secrets of CoPs in their own organisation. There have been a large number of academic papers about Communities of Practice but, so far, only a few books. Most of the books have, by necessity, taken a rather theoretical approach. This book however will examine CoPs from a practical viewpoint; it is directed at the general reader rather than a specialist audience. Our aim is to draw on the experience of people who have researched and worked with CoPs in the real world and to present their views in a form that is accessible to a broad audience. In this book you will find a blend of the best of current academic research in the field of Communities of Practice, observations from groundbreaking consultancy in the field of Knowledge Management and the accumulated wisdom of practitioners working at the cutting edge of Knowledge Networks. It is presented in a series of chapters each of which seek to offer pertinent and practical guidance for those involved with building or managing knowledge networks in their day to day work (http://www.virtualchautauqua.com/000562.html)

6) Metadata and Other Information about Information

Metadata R&D	The focus of the *metadata group* at UKOLN is to review current approaches to resource description and to look at future options for metadata in the wider context of resource discovery. (http://www.ukoln.ac.uk/metadata/)
Metadata for Best Practices	**Cataloging Best Practices:** Lists the metadata field definitions, cataloging best practices, and vocabulary explanations for the metadata fields in the Catalog System. (http://catalog.dlese.org/catalog/cataloger/editor/best_practices.jsp)
Array of Metadata Resources	The NBII offers an extensive array of metadata resources. Explore the links below and find resources for your organization to use: Find Metadata Training workshops and resources for trainers; Discover a variety of metadata creation Tools; Learn about Metadata Standards; Search the NBII Metadata Clearinghouse, submit your own metadata, or learn how to establish a clearinghouse node; Browse Additional Resources for metadata information. (http://www.nbii.gov/datainfo/metadata/index.html
Introduction to Metadata	Professionals who are deeply involved in the development and implementation of information standards have contributed to this second version of *Introduction to Metadata*: one comes from academia, one from the cultural heritage information field, and the third is a practicing librarian. (http://www.getty.edu/research/conducting_research/standards/intrometadata/index.html)
Metadata for Internet resources	The Dublin Core Metadata Initiative (DCMI) is an organization dedicated to promoting the widespread adoption of interoperable metadata standards and developing specialized metadata vocabularies for describing resources that enable more intelligent information discovery systems. (http://dublincore.org/about/)
Software to Capture Metadata	InfoLibrarian™ is a suite of tools to automatically capture metadata from your enterprise's database structures, programming code, processes, applications, and file systems and pulls it all together into a centralized repository that you can schedule. (http://www.brit-com.com/?OVRAW=knowledge%20management&OVKEY=knowledge%20management&OVMTC=standard)
Overview of Classification Systems in range of subjects/domains	Controlled vocabularies, thesauri and classification systems available in the WWW. DC Subject (http://www.lub.lu.se/metadata/subject-help.html)
CAB Life Science Thesaurus	CAB Thesaurus - The Thesaurus for the Applied Life Sciences Concepts, terms and their relationships in: * agriculture * horticulture * crop protection * animal production * veterinary medicine * plant sciences * forestry * soil science * natural resources management * human nutrition * food security * international health * tropical medicine * infectious diseases * rural studies * socioeconomics * leisure and tourism *sustainable development * pest management * genetic resources * biotechnology * applied microbiology * entomology * parasitology * mycology (http://194.203.77.66/Index.asp)
Overview of ontologies (1997)	**The state of the art in ontology design: a survey and comparative review** The major goal of this article is to develop a framework for comparing various projects in ontology design and put a number of prominent ontologies in this framework. According to Webster's dictionary (Woolf 1981), ontology is a particular theory about the nature of being or the kinds of existent. (http://www.findarticles.com/p/articles/mi_m2483/is_n3_v18/ai_20418259)