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Identification of Strengths, Weaknesses, Opportunities and Threats of the Community-based Forest Management Program

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ABSTRACT

A survey was undertaken during a workshop to identify the strengths, weaknesses, opportunities and threats (SWOT) of Community-based Forest Management in Leyte Province, the Philippines. A form with open-ended questions, rather than oral discussion sessions traditionally associated with the SWOT analysis, was presented to each member of the group simultaneously. The survey method with a questionnaire was aimed at minimising the time requirement, preventing the data from being biased by a few dominant players, and obtaining relative frequencies. The greatest strength of the forestry program is seen to be the empowerment given to rural communities to plant and manage trees on publicly controlled lands. Other strengths include the resources and training provided to support the program, and fostering cooperation between community members. Lack of foreign and local funding to support the program were viewed as the most important weakness. The possible withdrawal or depletion of foreign funding was seen as a major potential threat. Respondents are also concerned about whether communities can find markets for their timber and non-timber forest products. Other challenges include the lack of timber processing facilities in Leyte and instability and complexity of government regulations. With regard to opportunities, respondents tended to report what they would like to see done to improve performance of the program, rather than program innovations, probably because as yet little timber harvesting has taken place.

Keywords: participatory assessment, empowerment of rural communities, local government units, resource availability, timber marketing.

INTRODUCTION

A group identification method called the SWOT analysis is often employed when monitoring or evaluating a specific program, service, product or industry and exploring improvement measures (Harrison, 2002). This analytical framework can be used in the private sector as well as in public administration, professional associations and academia. For example, Dillan (1988) conducted SWOT analysis to evaluate the Australian profession of agricultural economics. Coetzee and Middelmann (1997) investigated the SWOT of the fynbos cut flower industry in South Africa.

The Food and Agricultural Organisation of the United Nations (FAO, 1989) has formally recognized the SWOT analysis technique as an important participatory assessment tool to be used to gather, synthesize and analyse information for community forestry development. A number of SWOT analyses have been performed in relation to forest management. Among others, RECOFTC (1999) used this technique to gauge the feasibility of potential community forestry extension programs in a training workshop held in Bangkok with 15 participants attending from Cambodia, Indonesia, Myanmar, Sri Lanka, Thailand, and Vietnam. Uychiaoco *et al*. (2002) highlighted the SWOT of various types of marine protected areas in the Philippines. Jiwan and Kendwang (2004) reported SWOT analysis results linked with agroforestry systems established in Sarawak, Malaysia. Oswald *et al*. (2004) undertook a comprehensive SWOT analysis to identify strategic plans for forest enterprises in Switzerland. Evaluation Division (2004) identified SWOT of Vana Samrakshana Samithies (VSS, community organizations comprising of families living in and around the forest areas) in Kerala State, India[1]. Harrison and Herbohn (in process) applied SWOT analysis to the redevelopment of a forest industry in north Queensland, Australia, following loss of the native timber resource due to World Heritage listing of tropical rainforests.

This paper concerns identifying the strengths, weaknesses, opportunities and threats of Community-based Forest Management (CBFM) program in Leyte Province, the Philippines. CBFM was established in 1995 by the Department of Environment and Natural Resources (DENR), providing 25-year tenure renewable for a further 25 years, over blocks of forestland to rural communities organized into people's organizations (POs). The program was designed to ensure the sustainable development of Philippine forest resources. The program has had a number of achievements but also experienced various difficulties (e.g. see Harrison *et al*., 2004), and information about the success of the planting efforts undertaken under the program are difficult to obtain. A SWOT survey on the CBFM program was conducted as part of an end-of-project workshop held at the Sabine Resort (Ormoc City, Leyte Province, the Philippines) during 19-21 August 2004[2]. The SWOT analysis was designed to take

[1] These organizations are empowered to function by means of prescribed registration with the Forest Department to manage and protect local forests. Joint Forest management (JFM) is being implemented through VSS in Kerala State.

[2] A smallholder forestry funded by the Australian Centre for International Agricultural Research (ACIAR) and titled ASEM/2000/088, *Redevelopment of a Timber Industry*

advantage of the expertise of the group of over 40 delegates, to provide insights into the current status of the CBFM program efficient strategies for operating the program in future.

In the next section, theoretical aspects of SWOT analysis are briefly reviewed. The concept, procedure and precautions in using the SWOT analysis as a participatory assessment tool are outlined. The features of the SWOT survey conducted in Ormoc are next provided. The SWOT of the CBFM program identified by the survey is then presented. Finally, some policy implications from the results of the SWOT analysis are discussed.

BRIEF THEORETICAL REVIEW OF SWOT ANALYSIS

In the SWOT analysis literature, the terms 'strengths' and 'weaknesses' refer to attributes that measure internal capabilities whereas 'opportunities' and 'threats' originate from external environments of an object being assessed, such as a forestry program. Internal attributes are controllable to some extent by program managers. Strengths are to be pursued, and weaknesses strategically eliminated or reduced. External attributes (i.e. economic, cultural, demographic, political or legal trends and events) are largely beyond the control of a single interested party. Stakeholders involved in a forestry program are urged to take advantage of potential opportunities, and avoid potential threats that could significantly hamper the goals of the program from being fulfilled (David, 2005).

In everyday language, the distinction between a strength and an opportunity, as well as between a weakness and a threat, is not always clearly understood, and participants in a SWOT analysis can become confused between these terms. A way to remember the difference is that strengths and weaknesses exist now; opportunities and threats refer to things which might happen in the future (McNutt, 1991). That is, 'strengths' apply to current forces associated with a forestry program at issue whereas 'opportunities' refer to what actions could be taken to enhance the program. Likewise, 'weaknesses' refer to current problems whereas 'threats' are problems waiting to happen. What makes the SWOT analysis more complicated is that some of the strengths may constitute weaknesses from another view (Dillan, 1988). In other words, sometimes individuals participating in the SWOT group might disagree about whether a current fact or condition is a strength or a weakness, or whether something which might happen will turn out to be an opportunity or a threat (McNutt, 1991).

SWOT analysis is typically carried out in the form of a group meeting, although it is not impossible for the SWOT of a particular program to be identified by a single individual. Ideally, a group represents a broad range of perspectives. Group participation is advantageous in that one person's spontaneous idea can spark a line of thinking from others which leads to a significant part of the analysis (McNutt, 1991). Oral discussion in a group is most productive if free-thinking is fostered. All participants are encouraged to voice their ideas without carefully weighing the significance of each observation so that open and frank discussion is facilitated. The

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Following Extensive Land Clearing, was conduced in Leyte Province in the Philippines over 2000-2004.

rule is nobody's comments are deemed inappropriate as long as he or she thinks that the stated fact is part of the situation.

Before group discussion sessions, the facilitator should make sure that all the participants are well aware of, or informed about the issue, the SWOT of which are being discussed. Once the group discussion commences, comments are solicited and recorded as appropriate under the four SWOT headings. It is typical to go through all strengths first, then weaknesses, opportunities and threats in order. Writing on newsprint tablets or a whiteboard prevents losing good ideas which may initially seem inconsequential but later become important. When each item is listed, some space is to be left to insert some other points of discussion that could be raised at a later stage (McNutt, 1991).

Verbal discussions can be disadvantageous as a way of collecting qualitative data if one or a small number of individuals come forward and tend to dominate the discussions, by way of their personality, rank or specialized knowledge. To prevent this disadvantage from taking place, an open-ended questionnaire survey can be conducted. A merit of employing this method lies in that not only the SWOT can be identified, but also the items in each SWOT category can be grouped into a few statements so that the frequency of each item can be recorded. This way, a questionnaire-based SWOT analysis can address some of the weakness of traditional SWOT analyses.

Apart from collating frequencies of responses, the SWOT analysis method must be regarded as a form of qualitative analysis method. To overcome this shortfall and improve the usability of the SWOT analysis, some hybrid methods have been applied. They include multi-sectoral qualitative analysis (Roberts and Stimson, 1998) and integration of the analytic hierarchy (AHP) process with SWOT analysis (A'WOT). The multi-sectoral qualitative approach examines the relationships between selected economic criteria and different options. These relationships are recorded using descriptive or numeric scores in a matrix format. The scores are summed vertically and horizontally, and then graphed to produce indices showing the significance of the criteria upon different options, and the options most influenced by the criteria used in the evaluation. The Delphi technique is used to develop the matrix. Delphi surveys seek to obtain group consensus views while minimizing the interactions between experts so as to prevent domination on the basis of personality or rank (Harrison 2002). Depending on the resources available, and the depth of the analysis required, focus group discussions can be used to develop scores for each industry sector (Roberts and Stimson, 1998). Kurttila *et al*. (2000) tested the A'WOT method in connection with a Finnish case study on forest certification. The method was proven to yield useful quantitative information about how alternative strategies are congruent with internal and external factors.

OUTLINE OF THE SWOT SURVEY ON COMMUNITY-BASED FOREST MANAGEMENT PROGRAM ANALYSIS

The 41 delegates in the ACIAR project workshop were all invited to participate in the SWOT analysis of the CBFM program. The delegates represented a range of occupational affiliations as presented in Table 1. About 50% were researchers from

universities, 13 respondents were from government and non-government organization, and others were community representatives or farmers. Although the ACIAR project was not directly aimed to address the CBFM program, all individual participants are familiar with the CBFM program and knowledgeable enough to identify current the strengths, weaknesses, future opportunities for and threats to the program from their point of view.

Table 1. Employment distribution of respondents

Category of affiliation of respondents	Frequency	Relative frequency (%)
National government department	7	17.1
Local government unit LGU)	2	4.9
Non-government organization (NGO)	4	9.8
University	22	53.7
Community representative	2	4.9
Farmer	2	4.9
Other (forester)	2	4.9
Total	41	100.0

A short presentation of the background of CBFM and definition of SWOT was made prior to the survey. Some background material (as presented in Figure 1) was provided to each and every individual to reinforce spoken explanations of the nature and definition of strengths, weaknesses, opportunities and threats. It was noted that there are no 'correct' and 'incorrect' answers, and that responses call for individual judgment.

Participants were asked to list as many items of SWOT as they could think of on the open-ended questionnaire blocked into four sections – i.e. strengths, weaknesses, opportunities and threats of the CBFM program. The authors then collected and examined all of the comments from each of SWOT categories and categorized into a series of concise statements. These statements then formed the basis for the calculation of the response frequencies.

SWOT ANALYSIS OF THE COMMUNITY-BASED FORESTY MANAGEMENT PROGRAM

Each person used their own individual wording, but there were clear similarities in responses, such that some grouping of responses was possible. The key statements with the greatest frequencies in each of the topic areas are presented in the tables and discussed in the rest of this section. The remaining strings of comments, which should not be counted less important, are listed with bullet points.

The objectives of the SWOT analysis

The objective is to identify the strengths, weaknesses, opportunities and threats in relation to *Community-Based Forest Management* (both community and individual landholder plantings) in Region 8 of the Philippines.

Definitions of strengths, weaknesses, opportunities and threats

(The following notes explain the four response categories in SWOT analysis.)

A '**strength**' is something positive which should help an activity to succeed. It is a circumstance working in favour of the activity. The policy aim is to take advantage of the strengths.

A '**weakness**' is a negative condition which may hamper the success of an activity. It is an unfavourable condition which could lead to reduced profitability or adoption. The policy aim is to avoid or overcome the weaknesses.

An '**opportunity**' is an innovative way to make an activity more successful – to create an environment more favourable to profitability or adoption. Opportunity should not be confused with strengths. The policy aim is to exploit the opportunities.

A '**threat**' is something potential such as an event or condition which, should it happen, will harm the activity and reduce the chance of success. Threats are external to farming operations. The policy aim is to avoid or overcome the weaknesses.

Areas for considering in identifying strengths, weaknesses, opportunities and threats

Resources available	Land, labour, capital, management skills, technology, tree species
Physical environment	Climate, severe weather events, wildfire, pests and diseases
Infrastructure factors	Roads, transport, wood processors
Economic factors	Costs of planting trees, transport and processing costs, livelihood issues, markets
Social factors	Landholder attitudes to forestry

Figure 1. Explanation of SWOT analysis distributed to respondents

Strengths of CBFM

In total, 96 comments were received, as summarised in Table 2. The most recognised strength of CBFM is seen to be the empowerment and security of access it gives to rural communities to plant and manage trees on publicly controlled lands.

Table 2. Strengths of CBFM identified by respondents

Program strength	Frequency
Community people are empowered to manage trees with secure tenure on publicly controlled land	16
Availability of resources and support programs (e.g. land, technology, seedlings and training)	13
Involving and encouraging a large number of individuals to plant trees	11
Creates cohesiveness among individuals in the community through active participation	11
Sustainable development: long term ecological benefits can be derived	10
Improving livelihood to smallholders, especially those living in the upland	9
Interaction between LGU, DENR and NGO, and POs	7
Potential high demand in timber market	4

Other strengths of CBFM mentioned include:

- It saves the government some responsibilities and costs involved in tree establishment and maintenance.
- Community people become more aware of protecting the natural environment and trees.
- The physical environment in Region 8 is conducive to tree growing.
- Guiding policies are clear.
- It encourages optimisation of resource uses

Weaknesses of CBFM

A total of 125 comments were written on the weaknesses of the CBFM. The remarkably large number of comments (greater than for strengths), no matter whether some of the comments are repetitive, may reflect on the sluggish progress of the program. The most frequently identified weaknesses are the lack of finances and microfinance programs, and uncertain and complex government regulations.

Table 3. Weaknesses of CBFM identified by respondents

Program weakness	Frequency
Lack of finance and of microfinance programs	13
Uncertain and complex government regulations	11
Lack of information, education and communication	8
Poor implementation of policies and guidelines	6
Low capacity of communities to run organisations and deal with administrative demands	5
Lack of cooperation among community members	5
Weak community organising, lack of manpower	4
Poor state of transport infrastructure	4
Lack of property rights or inflexibility of rights, with respect to land and trees	4

Other weaknesses of CBFM worth noting include:

- High dependence on foreign funds
- Poor support from governments officials
- LGUs have low awareness about the CBFM program
- Inadequate pest, disease and wildfire control
- Negative attitudes of landholders
- Low silvicultural skills of farmers
- Poor leadership and fragmentation of the organisation
- Political support is variable
- Lack of monitoring and response to problems
- Lack of viable alternative livelihood options
- Lack of markets for timber and non-timber forest products
- Lack of wood processing facilities
- Still dominated by a top-down approach
- The long time taken to get project approvals
- Lack of coordination among stakeholders
- Lack of dissemination of the project benefits to the general public
- Lack of forestry culture in communities
- Tolerance of corrupt practices in the system
- Trees are less profitable than other land uses
- Insecure land tenure
- Personal interest by the members of POs

Opportunities for CBFM

In total, 87 responses were obtained. Some of the facets of the program identified as opportunities may be classified as strengths because the items are supposed to have happened as a result of successful undertaking the CBFM for the last decade. The

participants did not see these items as current strengths, however, but as what needs to happen. Some examples of this include the potential for greater economic stability of upland farmers and the prevention of further loss of virgin forests. This result implies that a number of the aims for the community forestry program have not been fully achieved.

Table 4. Opportunities of CBFM reported by respondents

Program opportunity	Frequency
Availability of more foreign funding support or investment	15
Potential economic stability, better quality of life of upland farmers, diversification of livelihood	14
Potentials for improvement of the indigenous knowledge systems, technology transfer and forestry education	13
Honest and sincere implementation of CBFM, supportive government officials and lessened red tape	7
Enhancement of morale, cohesiveness, democracy and leadership within POs	6
Establishment of a stable market for the timber species that is being grown under the CBFM scheme	6
Planting right trees at right places: viable planting, developing improved methods of growing trees	5
Collective contracts with processing industry: formation of forest cooperatives	4

Other opportunities for CBFM conceived by respondents include:

- Prevention of further loss of virgin forests
- Dissemination of successful stories of CBFM projects
- Improvement in soil conditions
- Carbon credits on small-scale tree farming
- Building social infrastructure, in particular access roads to interior barangays
- Value-adding at the community level

Threats to CBFM

Seventy-one comments were made about future threats to the CBFM. Frequencies of key threat items conceived by the respondents are relatively uniformly distributed compared to strengths, weaknesses and opportunities. The most frequently mentioned threats to CBFM were identified as adverse effects arising from political intervention, unstable policies and regulations and poor implementation of the program. This result suggests there is lack of the public faith and confidence in the initiatives of the government policies and their intention related to community forestry. Regulatory failure or sovereign risk is seen as one of major threats to the program. For example, harvest rights may be changed in the future due to new environmental regulations.

Table 5. Threats to CBFM

Program threat	Frequency
Adverse political intervention	7
Possible failure in implementation of contracted rules or promised activities	6
Insecure tenure or uncertain harvest rights may discourage tree planting for harvest	5
Changes in government policies	5
Lack of sustainability of community attitudes, motivation or participation	5
Failure in developing accessible market for timber and non-timber forest products to be produced under the CBFM scheme	4
Deficiencies in rapport and communication between stakeholder groups	4
Natural calamities (e.g. typhoons, wildfire) may cause severe damage to plantations	4

Other threats to CBFM are listed below.

- Drain of foreign funding support
- Conflicts within community may lead to curtailment of specific CBFM programs
- The difficult peace and order situation may discourage plantation maintenance
- Mismanagement of PO funds
- Lack of political will of the national government to pursue the project
- Lack of long-term planning by local governments units
- Top-heavy administration of the program
- Big landowners may oppose the program
- Unequal distribution of benefits between farmers participated in the community forestry program
- Lack of resources (e.g. money, land and labour) for communities to plant trees
- Alternative livelihoods that may seem appealing to landholders

DISCUSSION

The key SWOT statements presented in this paper regarding the CBFM program implementation in the Philippines does not necessarily match the actual facts about the program's operation. Rather, the statements only reflect the respondents' opinions about the program given their varied experience and knowledge. Some items thus do not fit well in the four response categories, nor do some responses appear to be consistent across the four categories. To let the data speak for themselves as they are, these items were not shifted around or reworded, except for a few stand-out cases under the discretion of the authors. Each of the respondents obviously has a different perspective

regarding the current strengths of and challenges to the CBFM program. Decision makers or responsible government authorities can draw on some useful insights of how improvements can be made to vitalise the program from the survey results.

The empowerment of rural communities to plant and manage trees on publicly controlled lands and the availability of resources including land, seedlings and technology are ranked as main strengths of the CBFM. Among other strengths are cooperation between community members and the presence of some communication between government agencies and communities. Inconsistent with this view, no fewer respondents think that the lack of the foreign or local funds is a weakness of the program.

Many of the expected outcomes from the implementation of the CBFM have not materialised. Interestingly, as a result, some respondents filled out the opportunities section with what needs to be done or what they want to witness rather than what can be pursued to improve the program. The confusion was not able to be rectified due to the employment of the questionnaire survey method rather than open discussion administered by a facilitator. Another weakness of the questionnaire approach, even though the questions were open-ended, is that the respondents did not have an opportunity to elaborate on what they see as the underlying causes of the underperformance of the program nor on integrated strategies that may address perceived deficiencies.

Adverse political interference in CBFM projects, and the lack of stability as well as the complexity of government regulations are seen as major potential threats. Given the prevalence of poverty in rural areas and history of disempowerment of smallholders in the Philippines, CBFM projects require substantial resources, communication and cooperation. Many respondents clearly pointed out that these prerequisites to the success of the program are still lacking. They were concerned about whether communities can find markets for their timber and non-timber forest products. In particular the lack of timber processing facilities in Leyte was identified as a challenge to making the program sustainable. Much concern was also raised about LGUs, their understanding of CBFM and tendency to work to short term plans. Given the number of years the program has been operating, it is surprising that a lack of information about the CBFM program is still a problem for LGUs, community members and other stakeholders.

In summary, the principles of the CBFM are generally seen as appropriate but the implementation of them does not measure up to stakeholders' expectations. Much more action is required on a number of fronts to address the implementation problems and challenges to the CBFM program. While enhancement of the program should continue to occur, an urgent policy agenda may include improvement in political and administrative processes, the development of reliable, less complex regulations and stable timber market in future.

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