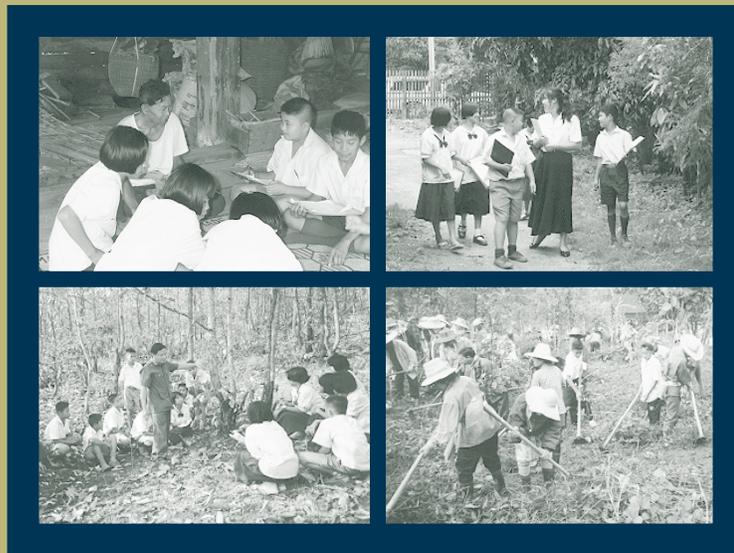


ADVANCING BASIC EDUCATION AND LITERACY PROJECT

TOWARD SCHOOL AND COMMUNITY COLLABORATION IN SOCIAL FORESTRY

Lessons from the Thai Experience



Maureen H. McDonough
Christopher W. Wheeler
Michigan State University



U.S. Agency for International Development • Bureau for Global Field Programs, Field Support and Research
Center for Human Capacity Development • Office of Basic Education and Learning Systems

TOWARD SCHOOL AND COMMUNITY COLLABORATION IN SOCIAL FORESTRY

Lessons from the Thai Experience

Maureen H. McDonough

*Department of Forestry
Michigan State University*

Christopher W. Wheeler

*Department of Teacher Education
Michigan State University*

Contents

Acknowledgments	iii
Executive Summary	v
1. INTRODUCTION AND BACKGROUND	1
Introduction	1
Background	2
2. SOCIAL FORESTRY, EDUCATION AND PARTICIPATION PROJECT ..	11
Project Goals	11
Project Strategy	12
Communities, Schools, and Projects	14
3. COMMON THEMES	25
Theme 1: A Better Way to Teach—Community Perceptions of Student Interviews and Presentations	25
Theme 2: Creating Conditions for School–Community Projects	29
Theme 3: Changes in School–Community Relations	36
Theme 4: The Need for Technical Expertise	44
Theme 5: Economic Issues	47
4. LESSONS LEARNED	49
Lessons about Communities	49
Lessons About Schools	52
Lessons About Staff Development, Training, and External Support	57
Lessons about Complexity, Success, and Variation	62
5. CAVEATS AND FURTHER QUESTIONS	67
Appendix	71
References	75

ACKNOWLEDGMENTS

We are grateful to a number of organizations whose financial support made this project possible. These include: the Ford Foundation, the Mobil Foundation, the Thai Ministry of Education, USAID's Global Bureau's Center for Human Capacity Development, the Academy for Educational Development, the Michigan State University Foundation, academic departments and offices within Michigan State University, and USAID/Bangkok. The opinions reflected in this paper do not necessarily reflect the views of these organizations.

We also wish to acknowledge the many contributions made by project fieldworkers and project managers who gathered the data reported here and in other reports and helped us understand their significance. These include: Michael Grinnell, Weena Namcharoensombut, Mayuree Pradit, Patcharaporn Puttawong, Sricarnue Sutaamchaw, Anong Patpon, Savitree Talabpan, Dusit Duongsa, and Joshua Hawley. Professor Napaporn Havanon provided valuable training in focus group strategies for our fieldworkers.

We want to thank David Chapman for inviting us to do this piece and for his support during its various phases. We are especially indebted to the following reviewers for their careful reading and helpful suggestions for improving this manuscript: Francy Hays, Benjalug Namfa, Maenette Benham, Bruce Miller, Sheldon Shaeffer, James Gallagher, and Michael Grinnell. John Engels's excellent editorial skills are much appreciated. The authors are responsible for any errors that remain.

For further information about the Social Forestry, Education, and Participation Project, please contact:

Dr. Maureen McDonough
Professor, Department of Forestry
126 Natural Resources Building
Michigan State University
East Lansing MI 48824
USA
E-mail: mcdono10@pilot.msu.edu
Fax: 517-432-1143

Dr. Christopher Wheeler
Professor, Department of Teacher Education
509E Erickson Hall
Michigan State University
East Lansing MI 48824
USA
E-mail: cwheeler@pilot.msu.edu
Fax: 517-353-6393

EXECUTIVE SUMMARY

The purpose of the Social Forestry, Education and Participation (SFEP) pilot project in Thailand is to change teaching, learning, and school–community relations by involving students in studies of local village problems related to forest management. Fifth and sixth grade students were taken out of school and into their communities to study real-world problems. Communities became laboratories for information gathering, and their human and physical resources were used to enhance students’ understanding of concepts taught in class. As students applied what they had learned to their communities’ problems, the schools’ role underwent a transformation as well, fulfilling a second goal of the SFEP, which was to have schools contribute to community capacity to address local problems. A third result of the SFEP was that schools became more integrated into their communities and, by providing technical expertise, contributed knowledge vital to the development of local solutions. At the same time, students developed knowledge of important concepts, useful skills, and positive attitudes about themselves and their ability to influence community actors.

The primary purpose of this paper is to describe the major themes and lessons from the perspective of villagers regarding collaboration between schools and communities. Findings regarding changes in the teaching and learning process have been reported elsewhere (Wheeler et al. 1997a and 1997b).

Data for this study were taken from focus group interviews with community members in six villages after the fifth school semester of the SFEP’s implementation (November 1995 to February 1996). These data are supplemented by other sources described in the text. Six primary schools (three each in two provinces in Northern Thailand) serve the children from these villages. Both the schools and the villages are generally representative of those in rural Thailand.

COMMUNITIES AND PROJECTS

The six communities, all located in or near forested areas, were founded in the midnineteenth century, but most growth occurred during successive waves of migration during the twentieth century. Village size ranges from 130 to 412 households. Forest depletion is serious in both provinces (labeled A and B), but has been more extensive in Province B, partly as the result of government policy and partly due to economic development in the surrounding area. As a result, there have been more aggressive village efforts to preserve forests through forest committees, although these efforts have only slowed, but not stopped, the rate of destruction.

Across all villages, fifth and sixth grade students visited communities to ask questions about village history and the origins and causes of various forest-related problems. These visits began in the first term of the project's implementation and expanded in number during successive terms, with only a few exceptions. Besides gathering data from villagers, students went to nearby forests to study plants and animals as part of their regular science lessons. In several schools, local villagers came along as "experts" to help them understand various species indigenous to that village.

After gathering data on village history and a forest-related problem, students reported their findings to villagers in an effort to stimulate discussion of small scale projects to address the effects of these problems. Results in Province A ranged from the implementation of a large-scale project at Village 1 to reduce forest groundcover burning to smaller projects over a range of issues at Villages 2 and 3. These included replanting a school forest and caring for seedlings in one community, establishing and clearing a school forest in another, creating an herb garden using local herbs in schools in both communities, and creating a new school-community committee to manage forest resources. In Province B results ranged from student-led public awareness campaigns about forest groundcover burning at Villages 4 and 5 to at least one student presentation but no followup at Village 6.

COMMON THEMES

Theme 1: A Better Way to Teach: Community Perceptions of Student Interviews and Presentations.

All communities supported this new form of teaching and learning and accompanying projects, although support was more defined and enthusiastic in Villages 1–5 than in Village 6 where no project was carried out. Community members understood this to be a new form of teaching and learning and strongly supported the process skills and academic content students were learning. Villagers also believed that such an approach to teaching and learning, including collaborative projects, could increase the chance that village problems, especially the management of forest resources, could improve over the coming years.

Theme 2: Creating the Conditions for School-Community Projects.

Initiating and carrying out projects in local communities are difficult and complex tasks. Focus groups and other methods of data collection identified three sets of factors (nine factors in all) that created the conditions for such involvement. The first set consisted of three latent conditions within each community that could be tapped to support the school's involvement in community development once the school moved in that direction. These included: (1) villager emphasis on the school as one of the three key pillars of a rural community, each of which needed to partici-

pate in solving common problems; (2) villager feelings that solutions to local problems would likely have to come from within the village because outside support could not be counted on; and (3) a history of village efforts to address forest management issues. Focus group interviews also showed that when students conducted interviews and collected data, their activities created a second set of conditions that could combine with the first to make involvement more possible. Such conditions included: (1) bringing issues to the attention of villagers; (2) stimulating villager soul-searching about the causes of the problem; and (3) raising the saliency of environmental issues in villager eyes. Mobilizing community support for projects to address forest management issues and other environmental problems requires more than simply bringing the issue to the attention of villagers and encouraging self-reflection. Whether such efforts actually tap into latent community support depends on other factors as well. Three factors related to school and community dynamics include: (1) school and village leadership and their support for such a role for the school; (2) teacher commitment; and (3) the effects of an incremental approach to change that allowed teachers to master one set of tasks before proceeding to another.

Theme 3: Changes in School–Community Relations.

All schools conducted interviews in the community and made presentations on their findings to community members. While villagers across communities expressed support for this new kind of teaching and learning, three patterns emerged when discussions turned to school–community collaboration on projects and their effects on relations between schools and communities. If the school actually worked with the community to plan and carry out a project, and the level of school participation once that project was underway was high (four villages), villager enthusiasm was also high and school–community relations improved significantly. Where teacher and student participation waned during the implementation phase, villager support declined from initial high levels; villagers complained that the school had gotten them into the project but had left it up to them to carry it out (one village). School–community relations improved, but such support was conditional. Where school contact was limited to investigations on village history and occupations, with no resulting project (one village), community members became confused about the goals of the project and criticized the school for not engaging in a project. In this village, while relationships improved as a result of student interviews, they were negatively affected by the lack of a project.

Theme 4: The Need for Technical Expertise.

Successful implementation of sustainable forestry projects requires technical information about trees and forests. A major premise of the SFEP was that schools can assist communities to acquire needed technical expertise. Teachers can provide technical information directly, or they can focus their class on the issue and make acquiring it part of the curriculum. Another way schools can play a role is by facilitating links with outside sources of expertise such as the Royal Forestry Department

(RFD), the Agriculture Department, the Community Development Department, faculty at Chiang Mai University, and various non-governmental organizations (NGOs). This might be done directly by the teachers, the principal, or indirectly by school cooperation with the village headman. Villagers can also make connections directly with these organizations, or through the contacts village headmen have with district offices. In only one case did a school adequately meet villager needs for technical information. The Ministry of Education's failure to provide effective teacher training in a timely way on forestry issues or strategies to obtain outside expertise contributed to this result.

Theme 5: Economic Issues.

Villagers understood that there are economic issues and disparities underlying their forest-related problems (four of six villages), among them the dependency of some community members on products from the forest such as fuel wood and mushrooms. Focus group data showed that some villagers knew that any solution to forest problems will require the development of economic alternatives for these people.

Villagers willingly donated time for interviews and attended meetings to learn what students had found. They saw this as a moral obligation, reflecting their duty to help the school and the next generation. However, opportunity costs became a concern when community projects demanded the participation of the entire village, as in the village that developed a comprehensive system of patrols to control forest groundcover burning.

LESSONS LEARNED

The SFEP has generated a number of lessons that provide encouragement for educators, community members, policymakers, donor organizations, and NGOs seeking to change school–community relations, provide more enriching educational experiences, and generate greater support for community development efforts. At the same time, these lessons show that promoting such change is complex, requires time, and may have unanticipated consequences that affect the achievement of such goals.

The lessons can be grouped under the following general categories:

- Communities
- Schools
- Staff development needs
- Complexity (including indicators of success)

LESSONS ABOUT COMMUNITIES

Lesson 1: Strong latent support exists within communities for projects like the SFEP. Such support can be mobilized for changing the teaching and learning process and initiating community development projects.

All communities supported this new form of teaching and learning. This support extended to student projects carried out in collaboration with villagers, especially where schools remained active during the implementation phase. In the one case where no project was carried out, villagers called upon the school to become more active in this area. Such strong positive support across villages was surprising, given traditional Thai deference toward elders and the belief that “children should be seen and not heard.” Yet existing values do not necessarily represent barriers to successful implementation of projects like the SFEP. During the implementation process of the SFEP, other values emerged that created the conditions for strong support.

Lesson 2: Villagers have much to contribute to the education of their youth.

If given the chance to become more involved in the education of their youth, villagers will come to see that the knowledge they have about village history, social relations, and economic structure is relevant to what students could learn in school. Their understanding of the events that created a range of environmental problems can be taken by students and woven into a coherent case study that makes sense to villagers. Villager knowledge of local forests and herbs can become the source for much student learning in science. The curriculum can be linked to daily life. In turn teachers, by using this approach to learning, are able to use a much wider array of resources to improve student learning. By the end of the pilot phase, most teachers in the project saw the need for school involvement in community development projects as appropriate and natural.

Lesson 3: As communities become involved with schools, relations improve and community expectations for schools increase.

Where schools worked with communities to plan and carry out projects (and teachers remained actively involved throughout the project), community support was highest. Where no projects were attempted, support for the approach was tempered by villager confusion over goals and frustration that the school did not take the next step. The lesson for those interested in changing school–community relations is that improved relations will result from using local resources in instruction, but such support can be significantly increased if the school also contributes to the community’s efforts to address its own problems. A second lesson is that as community members become more involved with schools they expect to have a greater voice in what the school does. This lesson should not come as a surprise, as the community participation literature suggests that communities, once consulted, insist on expressing their views (Nagel 1992).

LESSONS ABOUT SCHOOLS

Lesson 4: Students represent a powerful force for change within villages.

As community members answered student questions about forest-related problems, they were forced to confront the disparity between what they would like to see happen (forest regeneration and preservation) and what was actually occurring. In all villages, community members reported feeling a sense of embarrassment, bordering on shame, and even concern that they would have to answer such questions. As villagers learned the extent of the problems from student reports, conditions for supporting some kind of intervention were created.

It seemed to make an important difference whether these problems were raised from inside the community, by community members (students), or from outside, by some governmental organization. That villagers would be especially willing to listen to their own, and their neighbors' children, reflects two beliefs expressed by community members in the focus groups. The first is that while villagers felt they deserved government support and assistance to help solve a range of problems, they were skeptical that such assistance would actually be forthcoming. In all villages, community members expressed the feeling that ultimately they were on their own: if change were to come, it would come from their own efforts rather than from any outside help. The villagers' second belief is that the village leadership, temple, and school—the three pillars of the village—need to work together if change is to occur. That the school would now want to actively support community efforts to improve forest and other environmental conditions fell on very receptive ears.

In this project the diffusion process from the school to the community differed in a fundamental way from the more traditional approach used in many countries, where schools teach and the burden for dissemination rests with individual students. Instead, the school as an organization supported student data collection, presentations, and project intervention. This support served to increase student credibility and contributed to creating the conditions for a collaborative project.

Lesson 5: Teacher change occurs incrementally and is directly related to student response and the support teachers receive.

The strongest determinant of teacher change was improved student engagement according to evaluation findings. For others interested in projects with similar goals, potential student engagement represents a valuable resource to promote change. Coupled with more participatory forms of staff development and ongoing assistance from supervisors and the chance to share new understandings and problems with other teachers, the preconditions for significant change may also exist in primary schools in other countries.

Lesson 6: There is a need for ongoing teacher involvement in community projects.

Evaluation of progress toward solving a locally identified problem represents the final step in improving the teaching and learning process. Teachers need to remain actively involved during the implementation phase if students are to learn how to carry out this important component of the model.

To address forest-related problems villagers also require access to additional sources of technical information. It is not sufficient for teachers to encourage villagers to initiate a project. Unless teachers remain actively involved during the implementation phase, the opportunity for the school to contribute such technical expertise or to link community members with agencies that can will not exist.

Lesson 7: Principal leadership is important.

Principals in the project gave various levels of support and assistance to teachers. For those who seek to implement projects of this kind, more attention needs to be given to incentives, constraints, and training needs for principals to play the active, supportive role needed for teacher change to occur.

LESSONS ABOUT STAFF DEVELOPMENT, TRAINING, AND EXTERNAL SUPPORT

Lesson 8: Ongoing staff development for teachers in technical content, e.g., forestry issues, is important.

The transfer of technical expertise to project participants is a critical element in determining project success. In the SFEP, this transfer was to be made to the teachers who would then serve as “windows” to this expertise for their students and respective communities. As noted above, the project experienced difficulties in getting timely and regular assistance to teachers in the content area of forestry. For projects like the SFEP, some consensus needs to be reached on this issue during the design stage.

Lesson 9: There is a need to facilitate (or expedite) links to outside sources for technical expertise for teachers and villagers.

The ability of teachers to link their communities with outside technical assistance, particularly the RFD, was quite variable. Two lessons emerged from these findings. The first is that officials from agencies possessing needed technical expertise (forestry, community development, and agriculture, in this case) should be involved in discussions during the development phase of the project on strategies for accessing their technical knowledge (including how to appropriately contact such agencies). The second is that there is a need to train villagers, teachers, and principals to use these resources effectively.

Lesson 10: Promoting changes in school–community relations requires that villagers be trained along with teachers and other educators.

The Ministry of Education’s strategy of focusing on teachers and allowing the project to trickle down to the community meant it took too long for teachers to identify forest issues and activities. Given knowledge of the overall project independent of what teachers and principals provided and greater initial ownership, villagers might have exerted pressure to move sooner toward joint school–community projects. Finally, by not including villagers in training sessions, teachers were denied the opportunity to develop earlier relationships with village members, to learn about past village history, efforts to preserve forests, and the functions of various village committees concerned with forest matters.

If the project could have benefitted from including villagers in training sessions, it is not clear when such involvement might have been most productive. Because villagers were not included in any training, it is also not clear whether sessions with teachers, separate sessions, or some combination might have most effective. Future projects, however, should include villagers in training sessions as early as possible.

LESSONS ABOUT COMPLEXITY, SUCCESS, AND VARIATION

Lesson 11: Projects developed by schools and communities may have different overall project goals than a pilot project because the implementation process cannot be controlled.

A major goal of the SFEP was the development of joint school–community projects focused on sustainable forest management activities. The SFEP had some ideas of what these projects might look like based on baseline data in the communities that identified the potential for forestry projects. However, the projects that developed were often quite different from those expected by the SFEP and differed from community to community.

The implication of such complexity for those interested in promoting such changes elsewhere is to recognize that while they can influence many factors, they cannot control the process of implementation. Variation is to be expected, even encouraged, while the need for ongoing engagement remains constant. Such complexity and the possibilities for starts, stops, and new initiatives need to be anticipated when considering promoting changes of the kind described in this paper. This factor should also be kept in mind when evaluating the success or failure of an initiative.

Lesson 12: Definitions of success at the end of a project may vary from original criteria.

Two lessons about “success” can be learned from the experience of the SFEP. The first deals with the time frame in which success is measured. In evaluation research, it is a commonly accepted view that projects need time to demonstrate effects and that early evaluation—often done to satisfy policymakers eager for results—is unlikely to show effects of marked change and may even prove counter-productive to further progress. Just as there is a learning curve for teachers as they try new methods, develop confidence, and proceed to new challenges, there is a learning curve for communities. Given the short time in which schools actually began to work with communities on a project (two terms out of five), school–community activities can be seen either as limited progress or important first steps.

Another lesson about measuring success is related to the scale or size of the projects developed and the question of whether larger projects are more successful. If the school acts as a catalyst for community initiative but teachers fail to follow through during the implementation phase and the project develops difficulties, the effort may not be viewed as successful. In contrast, it could be argued that for villages where projects were smaller, the most important outcome was the integration of teachers into village committee decisionmaking organizations set up to work on forestry management issues. Such integration provided the opportunity for teachers to have ongoing involvement with issues as they arose and to influence the kinds of projects that are developed in the future.

One problem with this kind of analysis is that projects that do not require much time or do not create much controversy, while worthwhile and perhaps good initial starting points, may not affect the causes of problems regarding forest regeneration and preservation. Moreover, once a pattern has been established regarding what kinds of projects are “appropriate,” it may then be difficult to move into projects that raise more basic issues and have the potential for generating greater controversy. Whether such will be the case in the four villages where small scale projects were carried out cannot be determined, owing to the limited time that has elapsed since implementation began.

CAVEATS AND FURTHER QUESTIONS

In Thailand, in contrast to many other third world countries, primary education is universal. Moreover, as lower secondary opportunities have expanded, the testing system’s role of controlling the numbers of students who continue has become less meaningful. The growth of “expanded” primary schools in rural areas where grades 7–9 have progressively been added, means that for many Thai youth, it is routine to

continue beyond grade 6. Since there are no fees, the costs of attending have been significantly reduced. Since additional classroom space is located in or very close to villages, concerns about safety and transportation have been met. For those with adequate means, especially families that live in or near district, provincial, or urban centers, tests still play a role in selection to secondary school, although spaces do exist for those who fail to enter the more prestigious schools. District tests and school cluster tests are used more as indicators of student progress and school performance than as strategies for controlling success. These developments have led to increased flexibility for teachers at the primary level to experiment with teaching methods, such as those used in this project, without fear of endangering the chances of their students continuing.

For projects like the SFEP, the testing system can represent a potential barrier. Unless Ministry of Education officials in other countries are willing to examine the testing system at the same time that they implement a similar project, its benefits may be relegated to just studying local history and customs as an elective or non-examination course. Secondly, there is a need for ongoing administrative support to show teachers how they might adapt their teaching and still meet various testing requirements. If the second condition is met, the first is more likely to occur.

Questions remain about the potential for the Ministry of Education to support or resist projects like the SFEP. While there are currently several other projects like the SFEP underway in Thailand, the SFEP was the first to move beyond using the community as a learning resource and to involve the school in community development activities. In contrast to the Department of General Education (secondary) and, to a lesser extent, the Department of Curriculum and Instruction Development, the Ministry of Education's support through the Office of the National Primary Education Commission (ONPEC) has consistently been strong, especially for improving the teaching and learning process. Support for involving the school in community development projects remains more problematic, because school involvement in change-oriented projects raises profound questions about the school's role. Can involvement in community development projects be effectively linked to curricular concepts? Or do they represent a diversion from what students need to know and be able to do to proceed through the educational system? Where should the school draw the line between providing technical expertise and becoming one of many actors involved in local change activities? Can such a line be drawn? Given the daily workload of primary school teachers, how much time can they be expected to give to developing expertise in forestry, transmitting such knowledge to villagers, developing relations with outside organizations that can provide such assistance, or being actively involved in a community project? What responsibility do other organizations (RFD, Community Development Department, Agriculture Department) have for providing more appropriate assistance directly to communities and linking with schools, thus lessening the potential burden for teachers?

To date, projects underway have been either too episodic or too short in duration to generate any firm data on these important questions. Perhaps the lesson goes back to the notion of incrementalism. For those who seek to implement similar projects in other countries, perhaps small scale incremental changes at the grassroots level may provide the best chance to demonstrate to participants at all levels possible ways for reconciling their different views and meeting their legitimate concerns.

Change-oriented projects are fragile by nature, at least initially. The departure or reassignment of an active teacher or principal, the emergence (or re-emergence) of political strife within a community, changes in Ministry of Education directors-general or key project staff in Bangkok, provincial or district offices, new policy directions from the Ministry of Education in Bangkok—any one or more can weaken or reinvigorate efforts to change the teaching and learning process or to implement a collaborative project with a community. Sustained support coupled with incremental change provides the opportunity to begin the process of institutionalization.

Finally in terms of expansion, three strategies at the primary level are being used, reflecting a compromise between the Ministry of Education and Michigan State University. MSU project staff believed in the need for gradual expansion, but the Ministry of Education had the political necessity to provide information rapidly to a larger set of schools based on positive evaluation results. In nine provinces, a small set of sixty-four schools new to the project are receiving intensive training and assistance from staff at existing schools. Teachers, principals, supervisors, and village headmen new to the project visit project schools, which are serving now as demonstration schools. Project teachers, principals, supervisors, and village headmen with Ministry of Education support use participatory staff development sessions and encourage followup support similar to what they received. New participants have the chance to “shadow” project teachers as they carry out components of the project and to try out elements under their supervision. Another 156 schools will join this intensive program next year. A second strategy involves a larger set of primary schools (at least three schools in each of Thailand’s seventy-six provinces). Fifth and sixth grade teachers are learning how to carry out local studies of their respective communities. Provincial supervisors specializing in environmental education and trained by this project are responsible for this initiative. Finally, all fifth grade teachers in some 14,000 primary schools participating in a Ministry of Education school reform program have received some instruction on how to use community resources to improve science instruction. At the secondary level, the two participating rural secondary schools were selected by a major Thai foundation to serve as model schools to provide staff development to secondary schools in all four regions of Thailand interested in this approach to education. How these various strategies will evolve remains an important question.

1. INTRODUCTION AND BACKGROUND

INTRODUCTION

“I used to worry about what would happen to the forest when I died, but I am not worried after this project.” This reflection from a village headman captures the essence of the changes in community participation in local education resulting from the Social Forestry, Education and Participation (SFEP) project in Thailand. Over a two and one half-year period, six primary schools in two provinces in northern Thailand contributed to the capacity of their local villages to address significant problems related to deforestation and forest degradation through case studies of local environmental problems and the undertaking of small scale development projects to address them. Over the life of the project, teachers and villagers reassessed their views of community participation in the teaching–learning process and of the kind of knowledge that is important for youth to learn. By engaging youth in the study of local environmental problems and by establishing ways for students and the rest of their community to work together to resolve these problems, teachers and students learned how to apply academic knowledge to practical endeavors. The response to this approach has been positive: teachers and students find schoolwork more rewarding and community members find both immediate and long term benefits from interacting with their schools.

The emphasis on community participation in development projects has increased dramatically over the last fifteen years. This is particularly true of community forestry projects, which seek to address the worldwide deforestation crisis. The lack of access to needed forest products created by deforestation contributes to increasing poverty in developing countries where local people rely on forests for fuel, food, and building materials. The response of the international development community has been to experiment with small scale forestry projects that meet the needs of local people. Community forestry projects are one example of this approach. Community forestry projects are small scale, meet local needs, and provide for an equitable distribution of benefits to local people. A critical element in the success of community forestry projects is local community participation.

Thailand provides excellent examples of efforts to emphasize local forestry projects that involve the community as a way to combat deforestation. Prior to the SFEP, the Ford Foundation in Thailand supported initiatives to strengthen the institutional infrastructure that supported community forestry. A community forestry

division was established in the Royal Forestry Department (RFD). Within the Community Development Department in the Ministry of the Interior, community development workers were trained to deliver forestry information to communities where they were working on other projects. In northern Thailand, the Foundation supported collaboration among key local institutions and actors by supporting a community forestry management project that examined local forest management practices. Finally, the Ford Foundation provided training support for local monks and nongovernmental organizations (NGOs) to develop local participation in community forestry projects. Ford Foundation support for school involvement through the SFEP was the final element of its strategy to expand local institutional involvement.

There have been various efforts around the world to integrate communities into schools and schools into communities (Miller 1995; Baker 1990), but many questions remain about how to do this effectively. This paper uses the SFEP project in Thailand as a case study to examine the process for involving community members in schools. The analysis focuses on community–school projects related to forest management issues. The purpose of the paper is to assess the conditions necessary for successful implementation of these types of projects.

The remainder of this paper will use the SFEP to look at community participation in schools. First, the paper reviews the literature about community participation in schools. Second, it describes the communities and projects developed with the local schools that participated in the project. Next it discusses common themes that arise from examining project implementation and effects in all six communities. Finally, it lays out overarching lessons learned about community participation in schools in an effort to understand why things happened as they did and how such an approach to community participation in schools might be implemented elsewhere.

BACKGROUND

Community Participation

Discussions of community participation in international development projects have become quite widespread. Indeed, “participation” has become a buzzword although there is no agreement on what behaviors or activities are actually meant by the term. Definitions of what constitutes participation in projects vary along a spectrum anchored at one end by provision of labor for project implementation and at the other by projects where local communities control all project features from objectives to outcomes. Related to differences in views of what behaviors constitute participation are differences in perceptions of the overarching goals of participation. The question is whether participation is a means, an end, a tool, or a goal (Dudley 1993; Nagle 1992; Lane 1995). Participation is viewed by some as a means to accomplish project goals within the constraints laid out in the project’s design. Using

local people to implement projects primarily by providing physical labor provides cost efficiency through reduced labor costs, for example. Dudley (1993) argues that these activities should be called community contributions to projects rather than participation. Another example of participation as a means to accomplish project goals is community management of projects. For example, committees may be set up to allocate project benefits. Again, if this is a mechanism to accomplish externally determined project goals, participation is a means rather than an end. Lane (1995) suggests that these approaches are more typical of projects that are perceived as technical assistance.

If participation is an end, however, then the empowerment and capacity building that accrues from participation is actually the project goal. Participation can build responsive, active, and democratic communities (Setty 1994). These projects are more typical of projects that focus on community development (Lane 1995). Of course, in any given project, participation can be a means as well as an end. Nagel (1992) argues that participation should be viewed as a “hybrid reality,” that often has characteristics of both means and ends no matter what the original plan. One may start with the idea that communities will simply provide labor but will find that communities, once consulted, insist on expressing their views (Nagel 1992). Conversely, those who see participation as valuable for its contributions to community empowerment find that participation has some very practical benefits in getting projects done more efficiently. Projects may have both short term goals, which are generally the utilization of local resources to complete a project, and long term goals, which focus on building self-managing communities (Setty 1994). Different views of the purpose of participation reflect the state of affairs in which participation in theory seems like a good idea but in practice can be quite threatening to particular interests, the current social structure, or can reflect outside idealism and views of democracy that may not be appropriate in the communities being targeted (Dudley 1993).

Significant effort has gone into determining what makes community participation in projects “effective,” whether it is a means or an end. In fact, this literature is voluminous. The following key characteristics derive from evaluations of community forestry projects in developing countries as that is the focus of the project analyzed by this paper. The exception comes from an extensive review of community forestry projects in Canada. However, many of these involve indigenous people in rural areas making the conclusions generalizable to other rural settings.

The following features have demonstrated importance in successful community participation in forestry projects:

- There must be *clear agreement on project objectives* among all parties involved, including community members, outside organizations, and agencies (Poffenberger 1996; Harvey and Hillier 1994; Alamgir 1989). Community members will participate when they perceive that benefits will

accrue to them (Nagle 1992) and that benefits will be greater than costs (Lane 1995). It is, therefore, very important to engage the community as early as possible in order to have clear agreement about project objectives and benefits (Alamgir 1989; Tucker and Napier 1994).

- It is critical that *technical expertise* be transferred to the community. Forest projects require technical information and knowledge. For communities to own these projects, forestry agencies must transfer this knowledge to community members. (Asian NGO Coalition 1991; Poffenberger 1996; Vettivel 1992). Clearly identified links to outside agencies are also important. Community members need to know resource people and feel they are accessible (Vettivel 1992).
- *Existing community social structures and decisionmaking* procedures should be identified and used as much as possible rather than attempting to create new structures and institutions for specific projects (Harvey and Hillier 1994; Asian NGO Coalition 1991; Alamgir 1989). Caution needs to be exercised, however, to insure that the poor are included as project benefits can easily gravitate to existing power structures in the community and high status interest groups can dominate the participatory process (Lane 1995). Small work groups have been found to be effective in some communities in implementing projects as long as care is taken that the entire community is informed. Hage and Finsterbusch, in their 1987 examination of institution-building strategies for organizations in international development in six countries, argue that solutions to local problems depend on local communities, whatever the performance level of the outside organization. Across the board, one of the most important tactics for change was to train local leaders both in leadership and technical skills.
- Supportive *external policies and institutions* are needed for participatory projects to be sustainable (Alamgir 1989). Inducements such as access to credit and useful assistance from government officials facilitate local participation and sustained projects (Alamgir 1989; Vasoo 1994; Viriyakakultsorn 1994).

Role of Communities in Schools

There is considerable discussion in the literature of the possibilities for improved relations between schools and communities. In the United States, this discussion has focused primarily on rural schools and the reciprocal relationship that can and should develop between communities and schools (Miller 1995). Miller (1995) suggests that while schools are part of the community's social capital, they have distanced themselves from this role. Social capital (the social resources of the community that facilitate cooperation for mutual benefit) can be built by developing strong linkages between schools and communities (Putnam 1993; Miller 1995). Schools can become more central by serving as resources for community need while communities provide the community-based learning that enriches the learning

experience and develops civic competencies in students. However, while not explicitly stated, one gets the impression that such efforts are not widespread. Baker (1990) reviews the status of reciprocal school–community relations in developing countries and concludes that success at these endeavors is quite limited, even in countries such as Tanzania where active school–community integration projects exist. In the majority of cases around the world, the role of the community in the school is limited to parents providing labor, money, and building materials. It is rare that community members actually instruct children (Bude 1989).

The concept of more community participation in education is not necessarily new. In the past, education was not a separate institution imposed by the state but rather a part of the community reflecting the natural interest of families and communities in the education of children (Shaeffer 1991). However, this natural interest has been significantly reduced by the imposition of schooling as a state function (not to be confused with the broader concept of education as preparation for functioning in society). Increasing community participation in schools is actually a process of reviving this interest rather than creating something completely new (Shaeffer 1991).

There are efforts to get more community involvement in schools, ranging from attempting to generate more parental involvement in organizations like parent–teacher organizations, to using the community as a classroom, to serving as a catalyst for development activities. Following are examples of this spectrum of efforts.

In Mali, a large scale project aimed to enhance parent and community participation in the improvement of schools through the establishment and strengthening of parent–teacher organizations. The ultimate goal of the project is to develop parent–teacher organizations into community service organizations that play an active role in school management (World Education 1995). The project strategy is to build the capacity of local NGOs to develop parent–teacher associations, which can in turn contribute to local school development projects. The focus of community participation is to enhance the quality and relevance of the educational system.

The El Salvador community education strategy is an example of community-managed schools (World Bank 1994). The purpose of this project is to promote the participation of rural communities in “defining and administering education services.” Community education associations are elected by the parents of the children in a school. The Ministry of Education trains these associations on the administrative requirements for managing transferred funds. The community education associations are responsible for recruiting teachers, managing both salary and operating funds for the school, maintaining schools, and negotiating with government, international agencies, or NGOs to obtain additional funds. Evaluation of this program indicates that it has helped rural education become more widespread in El Salvador. While parents and association members are satisfied with the training, they want additional

training on improving the educational condition of their children and enhancing community participation more broadly in educational decisions. It should be noted that the Ministry of Education provides schools with teacher training, teaching and learning materials, and supervision.

Egypt's community school project also promotes community management of schools through school committees (UNICEF 1995). Rather than teachers, school committees select "facilitators," who will be responsible for facilitating student learning. Facilitators are young women from the community who have at least a diploma. The Ministry of Education provides training, staff development, and instructional materials for the facilitators. On-the-ground support for facilitators and communities, e.g., weekly visits, is provided by local NGOs under contract to UNICEF. The project was designed to catalyze other community development activities. While no strategies were overtly implemented to achieve this goal, in fact, other development activities have occurred that can be directly attributed to the implementation of the community schools project. These include development of income-generating projects such as a biogas plant and a grocery store where a certain percentage of the profits support the community school. These activities are attributed to both the unifying effect the school committees have had on the villages and the avenue to government resources that they have opened up for local people.

There are three examples in Latin America of educational reform projects that have promoted development of school–community partnerships as direct project objectives (Reimers 1993). These are Columbia's *Escuela Nueva*, Chile's *Programa de las 900 Escuelas* and the *Fe y Alegria* project implemented in twelve countries. The *Escuela Nueva* project has four components: curriculum, training, administration, and community involvement. The curriculum component promotes active community-based learning tailored to the realities of everyday life for children. The curriculum provides links between the school and the community through such activities as field trips to the village to conduct interviews about the history of the village and local farming methods. Teacher training in this project includes a module on school–community partnerships. It appears, however, that community involvement is limited to the participation of parents in school activities such as attending meetings at the school and assisting in improvement of the school's physical plant. Chile's *Programa de las 900 Escuelas* was targeted at the poorest schools. Integrating the school and the community was a specific project objective. The overall project focused first on improving the physical plant of schools and providing basic equipment and books. Next, inservice training for teachers and supervisors was implemented. The link to the community is made through a program of learning workshops conducted by tutors or monitors from the community who work with the slowest learners. These monitors are generally under thirty years old and provide a continuity between the school and families in the community. The primary goal of the *Fe y Alegria* project is to provide quality education to the poor. Most of the work

is in the formal education system and it attempts to create partnerships with local communities. The Ministry of Education pays teacher salaries, communities build and maintain schools, and *Fe y Alegria* (an NGO) trains and supervises teachers and manages the school. *Fe y Alegria* has as an additional objective, however. In *Fe y Alegria* projects, communities go beyond supporting school activities and encourage the school to operate as a center for community development and a catalyst for confronting community problems. In Bolivia, for example, schools have participated with communities in health-related projects.

Issues Associated with Developing More Community Participation with Schools

The review of the existing state of community participation in schools reveals some common issues that need to be addressed if community participation is to be increased. The first of these is teacher resistance to an increased role for community members. In El Salvador's community education project, for example, teacher unions strongly opposed the authority of the elected community committee to recruit, hire, and fire teachers. However, the autonomy of the committees to do this is now credited with increasing teacher attendance. In Chile's 900 Schools project, teachers and principals resisted allowing monitors from the community play a role in the academic function of the school (Reimers 1993). In an assessment of the *Escuela Nueva* project, Schiefelbein suggests that one reason for teacher resistance is that teachers are protected by their traditional role as a source of knowledge. For community-school projects to be successful, he suggests, teachers must be willing to give up this protection and play this new role. He observes that it takes time for teachers to move through the stages of relinquishing traditional teaching practice and roles (Schiefelbein 1992). In addition, teachers need significant support to make these changes, including time and resources (Miller 1995).

Another related cause of teacher resistance is that community participation in schools requires teachers to operate in a format at odds with their training. Teachers generally have no active learning experience themselves and the more their work is oriented toward the community, the greater the demand on teacher training to prepare for this role (Bude 1985). The *Escuela Nueva* project has clearly demonstrated that teachers need to see these new forms of teaching and learning and community participation at work in a demonstration school (Schiefelbein 1992). (Another necessary step is to train community members to participate effectively. Community training is an essential part of the projects in Egypt, El Salvador, and Chile.)

Another challenge to increased community participation in schools is the differing institutional goals of schools and communities (Bude 1985). Bude argues, based on a report to the Conference of Ministers of Education of the Francophone Countries of Africa, that the school as a social institution is cut off from real life because the curriculum is not rooted in the social, political, or economic environment

and does not prepare citizens to carry out any functions in life. Hopper (1980) draws the same conclusion from his work in Zambia where he concluded that educational systems with teacher-centered methods of learning and curriculum that are not relevant to daily life favored the isolation of the school from the community. In his assessment of education in Latin America, Schiefelbein (1992) determined that curricula generally are poorly linked to daily life.

One significant reason for the isolation of the school from the community is the orientation of schools to externally determined examinations, which has resulted in a focus on centrally determined curriculum and preparation for exams (Bude 1985; Baker 1990). However, responsibility for this cannot be placed solely on schools; it is also a concern of parents who worry that participation in community-based projects will hurt students' chances for advancement (Baker 1990). Whether schools get involved in community development projects is strongly related to the degree to which these types of activities are perceived as central or peripheral relative to the curriculum (Bude 1989). Evaluation of community-based learning projects suggests that it is critically important to link student projects in the community with curriculum requirements if these projects are to be sustainable (Miller 1995).

Given the differences in goals between communities and schools, how can we return to community participation as Shaeffer (1991) has suggested? Regaining community collaboration and participation in education requires new skills and organizational structures, including devolving some authority to lower levels of the educational system, developing a shared sense of ownership, responsibility, and accountability for education among government, school, and community, and removing administrative and organizational obstacles (Shaeffer 1991). Communities have shown they are willing and able to have a reciprocal relationship with schools *if* properly encouraged and motivated (Baker 1990). However, in her review of a variety of cases of school–community integration for development, Baker (1990) concludes that schools are inherently conservative organizations that are not good at bringing about community change. While Torres (1996) strongly contends that schools should always be asking what the school can do for the community, over one half of the principals involved in community-school projects in Sri Lanka felt that reciprocal development is simply not possible (Baker 1990). Bacchus (1982) reviewed efforts in Cuba, China, and Tanzania to integrate school and community learning. He concludes that success is dependent on much more than an introduction of a new educational strategy. Reform of educational administrative structure is needed as well. The structure of this reform must include, at the least, supportive policy initiatives from administrators (Miller 1995; Bude 1985).

A related issue is the lack of a clear definition of what should be the school's role in community development. Conceptually, schools are a widespread national institution and should be able to assume tasks other than the transfer of basic knowl-

edge (Bude 1985). But the application of this philosophy is quite uneven. Bude (1989) identified a typology of community-oriented projects in which primary schools are involved based on his work in Cameroon. These are:

- Development projects where community problems become the subject of instruction for students and there is intervention by teachers and students in the problems.
- Services for the community where the school does work for community members as a substitute for payment for such things as building projects.
- Adult education and recreational activities where the school facilities are available to community members during nonschool hours and/or the school organizes educational and recreational events for the community.
- Agricultural and industrial production where students learn about these industries at school.
- Traditional culture where local customs are reflected in school activities.
- Pedagogic medium where the local community is used as a learning laboratory to deliver a centrally developed curriculum but there is no intervention in the community by the school.

Miller (1995) presents a similar typology of approaches to community–school linkages: the school serves as a lifelong learning center for the community, the school uses the community as a source of knowledge for students, e.g., students study the community; and schools identify and address community needs.

Opportunities available to schools to participate in community development activities are strongly influenced by the existing community infrastructure and the development level of the community. Because community needs vary by the type of development zone they are in, e.g., remote rural, well equipped rural, or urban, school–community projects will also vary (Bude 1985, 1989). School curricula based on community development projects can run into problems as communities become more developed because the increase in technical complexity of projects can exceed the ability of the school to contribute. Eventually, the types of projects communities need like water systems and electrification can only come about with external assistance (Bude 1989). UNICEF's (1995) evaluation of the community school project in Egypt suggests that an effective role for schools in facilitating community development is to provide information contacts and networking to the community so that the community itself can develop services.

The widespread efforts to integrate schools and communities appear to have one of three goals: improve student education (recognition of students' community and culture, changed teaching–learning practice, real life experiences), improve school–community cooperation for specific short term projects (trash cleanup, community woodlots) and/or contribute to long term community sustainability (new ways for the school to contribute to life in the community). Whatever the goal is in a particular

situation, the role communities play in education must be more than traditional requests for help from the school for educational reform to occur (Reimers 1993).

Benefits and Risks of Increased Community Participation

Increased participation of communities in education and schools has both demonstrated benefits and risks. Schools can become more relevant to local needs and conditions. Through community monitoring, schools may become more effective and efficient. Communities may see schools as more valuable (Shaeffer 1991). Students may have greater awareness, self-confidence, and self-reliance (Shaeffer 1991). Students may develop meaningful relationships with adults in their communities and may begin to see their communities as positive places to live and work (Miller 1995). Teachers and principals may develop leadership abilities (Reimers 1993). Communities may engage in more effective management of local resources. Local organizations may be developed and strengthened (Shaeffer 1991). Communities may gain access to government resources. And more women may become involved in community activities.

Community participation in schools is also an important support for democracy, because it promotes local participation in solving local problems (Reimers 1993). This mirrors an important impact of participation in general through which communities gain knowledge and learn to address local conditions, which gives people experience in democracy and empowerment (Nagle 1992). Community participation in schools serves as a model for children of local action and participation in development (Reimers 1993).

Increased community participation in schools is not without risks. These include: additional expense including the opportunity costs in time and money for both community members and teachers, role conflicts for all involved, risk of failure and decline in services, potential for emphasis on narrow and shortsighted community self interest, potential for manipulation by community power elites, threats to the social and political order and the risk of tokenism in which only marginal or superficial change will be achieved and perceived as sufficient (Schieffelbein 1992; Shaeffer 1991).

2. SOCIAL FORESTRY, EDUCATION AND PARTICIPATION PROJECT

PROJECT GOALS

The purpose of the Social Forestry, Education and Participation (SFEP) pilot project in Thailand is to change teaching, learning, and school–community relations by involving students in studies of local village problems related to forest management. Fifth and sixth grade students were taken out of school and into their communities to study real-world problems. Communities became laboratories for information gathering, and their human and physical resources were used to enhance students’ understanding of concepts taught in class. As students applied what they had learned to their communities’ problems, the schools’ role underwent a transformation as well, fulfilling a second goal of the SFEP, which was to have schools contribute to community capacity to address local problems. A third result of the SFEP was that schools became more integrated into their communities and, by providing technical expertise, contributed knowledge vital to the development of local solutions. At the same time, students developed knowledge of important concepts, useful skills, and positive attitudes about themselves and their ability to influence community actors.

Changes that took place during the two and one-half years of this project in the teaching and learning process have been described elsewhere (Wheeler et al. 1997a,b). The purpose of this paper is to describe the major themes and lessons from the perspective of villagers regarding collaboration between schools and communities that occurred as a result of the SFEP. The primary data sources are focus group interviews with members of the six communities surrounding the primary schools participating in this project. These data are supplemented by additional data from the teachers and other officials involved in the project. The focus groups were conducted at the conclusion of the pilot project (May–July 1996). Three focus groups were conducted in each of the six communities associated with the six primary schools participating in the project (community leaders, community members directly involved with some phase of the project, community members not involved with the project). Supplementary data come from baseline reports on each village, interviews with selected community members after the first semester of implementation, a community survey after the third semester, and personal interviews with community members who had either been interviewed by students or who had attended a student presentation.

PROJECT STRATEGY

Project implementation occurred over five school terms (November 1993–February 1996). (For a discussion of site selection procedures and general project strategies, see Appendix.) The first term of the project was the second semester of the academic year (November 1993–February 1994). Teachers from both grades were encouraged to take their students to interview villagers on village history and forest conditions over time. This term was essentially seen as a skill-building experience for teachers, who had never tried such an activity. It was also an opportunity for villagers to learn about the project and what kind of knowledge they might contribute.

During the second term and all subsequent terms, fifth grade teachers were encouraged to build student skills in developing questions, interviewing villagers, and making sense of the data. They did this by continuing to have students interview villagers on village history, including environmental issues related to forests and trees, as well as on various related topics such as social structure, occupations, and family life (all part of the curriculum for this grade level). Sixth grade students surveyed villagers to identify a specific forest management problem. They then studied the origins and causes of this problem. Visits to communities increased over time. In most schools three or more visits took place per term, but some teachers took students out weekly. Some teachers had students collect data on weekends or after school. In many cases, teachers asked students to use their parents or neighbors in the evenings as sources of information for a particular topic. As the terms progressed, community members came to see student visits as a regular component of this “new way of teaching.” Both fifth and sixth graders made presentations to parents and other villagers at school meetings and regular village meetings. As a result of these meetings, a number of initiatives were started with school participation to address the problems studied by students.

The project had several key elements that were relevant to issues discussed above in this paper on both participation in community forestry projects and community participation in schools. First, participation in the project was conceived as both a means and an end. Community participation with schools was a means to improve the teaching and learning process and to provide the community with access to improved forestry practices. As an end, the goal of participation in the SFEP was to develop new links between schools and communities by integrating the educational system into efforts to promote sustainable forestry development. The project also sought to contribute to the development of a generation of more informed and proactive citizens.

The second element was the transfer of technical expertise. The project attempted to transfer technical expertise to the community through teacher training in

forestry, the development and use of a handbook–guide for teachers that included forestry information, and coordination with relevant government departments.

A third element was training of both teachers and community members. Besides technical training, teachers were trained in curriculum development and integration as well as methods to encourage active student learning. Such training modeled participatory methods for teachers as suggested in other projects. The literature suggests that teacher change takes time and is incremental in nature. These factors were addressed in the SFEP through ongoing teacher training that allowed teachers to move in stages from taking students out to interview community members to working with the community on projects. Community member training was originally included in the design of the SFEP but was deleted by the Ministry of Education.

A fourth element relates to the nature of the curriculum and the strength of the tie between what happens in school and the realities of everyday life. By using case studies in the community, the SFEP closely tied what students learned in school to their families and their communities. While teachers had to be concerned about student scores on school cluster, district, and provincial examinations, the rapid expansion of opportunities at the lower secondary level in rural areas has reduced the “gatekeeping” role of examinations and grades.

While the literature suggests that the use of community members as teachers is rare and is generally resisted by schools, the use of community members as a source of knowledge for students was a very important element of the SFEP.

A fifth element relates to the existing community social structure. A significant focus of the case studies was for students to examine the social and political structure of their community, particularly as it related to forests. Students interviewed the headmen, abbots, village committees, and forest committees.

The Latin American experience reviewed above emphasized the importance of demonstration schools. The SFEP was developed using pilot schools. While there were no demonstration schools for the pilot teachers to visit, they did meet often with each other to share their experiences. This sharing was an important component of ongoing teacher training. The pilot schools are now serving as demonstration schools in the expansion of this project to other schools and provinces in Thailand.

The importance of external support has been documented. The SFEP provided significant administrative support for teachers from the Ministry of Education, supervisors, and principals.

COMMUNITIES, SCHOOLS, AND PROJECTS

Since a principal goal of the SFEP was to encourage new relationships based on school involvement in various community projects, it is important first to describe what happened at the sites. Because there are some important contextual differences between communities in each province, activities that occurred are presented separately by province, beginning with Province A and followed by Province B.

Province A

The three communities in Province A are all located in heavily wooded areas, between two and three kilometers from the main highway. The villages are adjacent to one another. However, considerable forested area separates the villages. The three primary schools in these villages all belong to the same school cluster.

The villages were originally founded in the mid-nineteenth century by small groups of families searching for agricultural land. Successive waves of migration from provincial cities coupled with high birth rates (until the 1970s) created villages ranging from 270 households to 412 households.

As each wave of migration entered these villages, more forested area was cleared for agriculture and building. At present, people in all three villages also cut trees to sell or to make various products. In Village 1, wood is used to make charcoal. In Village 2 some residents use wood to make furniture to sell. In Village 3 individual businessmen in the village and more powerful businessmen from outside the village hire local residents to cut trees for them to sell (illegal logging).

While nearly all villagers are engaged in rice farming, low prices coupled with rising consumer expectations have led villagers to seek seasonal work outside the village. This might be in construction (Village 3) and often takes place in far away places, like Bangkok or farther south in Surat Thani. A small pickling factory near Village 3 provides some employment opportunities for women. Besides rice farming, villagers in Village 3 plant hill crops such as squash, ginger, and watermelon. In Village 1, cassava and sugar cane are raised as cash crops, and land has been cleared to plant peppers, cabbage and eggplants. In Village 2, besides peppers and cabbage, farmers grow tobacco and ginger. Villagers without rice fields clear land for orchards or hill fields.

Table 1 summarizes the key forest types in each village. Forest reserves were established by the national government and are located on government land. Community forests are areas of forest reserves delineated by communities with or without the approval of the RFD. School forests may be on school or village land but, in the case of one village, is a delineated section of the forest reserve. Other types of forests

Table 1: Baseline Forest Activity by Village

	Key forest types	Forest management	Decisionmaking
Province A			
Village 1	Forest reserve Community forest Other	None Rules about cutting Plant tree seedlings	None Village committee Village committee, villagers
Village 2	Forest reserve School forest	None Plant/care for tree seedlings	None Village committee, principal, monks
Village 3	Forest reserve Other	None Plant tree seedlings	None Village committee, villagers
Province B			
Village 4	Forest Reserve Community forest Other	Rules about tree cutting Rules about cutting Plant tree seedlings	Village and forest committee Village and forest committee Village committee, villagers
Village 5	Forest reserve Community forest School forest Other	None Rules about cutting Plant tree seedlings Plant tree seedlings	None Forest committee Village and forest committee Village and forest committee, villagers
Village 6	Forest reserve Community forest School forest Other	Rules about cutting Rules about cutting Plan/care for tree seedlings Plant tree seedlings	Forest committee Forest committee Village and forest committee Village and forest committee, villagers

include degraded forest reserve used for grazing, crematoria, temple forests, and trees on private land (households and farms).

The RFD is officially responsible for monitoring activities in forest reserves to prevent tree cutting. While villagers in two communities use such land for grazing and food, people in all three villages generally ignore government restrictions on tree cutting and use the forest reserve in their immediate area as a source of logs for sale, building material, and fuel.

In all the villages, no management system exists to care for the forest reserve areas, in spite of their heavy use (Table 1). Forestry officials and police periodically check on tree cutting. At best they might consult with the local village committee regarding their findings. Village management of the other types of forests is variable and ranges from creating rules about cutting in the community forests to planting tree seedlings in the school and other types of forests. With the exception of Village 2 where trees planted in the school forest are cared for by villagers, tree seedlings are not cared for after they are planted.

The RFD does have a general forest maintenance program, which trains small numbers of villagers in fire-fighting techniques to combat forest fires during the dry season. But there is no specific program focusing on combating the causes of wild-fires started by some villagers in various communities. Poorer elements within villages or from neighboring villages often use this as a way to capture small animals and insects for sale. They also believe that by burning off accumulated leaves and groundcover, the resulting soil conditions promote mushroom growth, providing thereby another product for income.

No project village has a forest committee, but responsibility for the management that does occur for other forest types rests with the local village committee (sometimes in cooperation with the village temple) or, in the case of trees on villager property, with these individuals. In only one case is a school principal or teacher involved in these decisions (Table 1).

Province B

The three communities in Province B province are similar in many respects to those in Province A. They are located in wooded areas, along a mountain range, roughly 8–15 kilometers from the main road. Village 4 is adjacent to Village 6 and Village 5 is not far away from either village; all three belong to the same school cluster. Rice farming is the predominate occupation in each village.

However, as the villages are located only some forty-five minutes from the second largest city in Thailand and only fifteen minutes from the provincial capital city, increasing numbers of younger community members seek full time employment in various factories that have located in Province B's industrial park and in small businesses that have sprung up to service such industries. Such nearby market economy sources of income contrast with the distance villagers in Province A must travel to find employment.

Forest depletion has been more extensive, sometimes as the direct result of government policy. For example, prior to the 1920s most villages, including the three in this project, were small and relatively stable in size. However, when a railroad line linking Bangkok to Province B was built through one of the villages (Village 5) and

near another (Village 4), migration into the area increased substantially. While project communities have never increased to the size of those in Province A, their growth rate was substantial during a shorter period of time. Their current size is as follows: Village 5 (285 households), Village 6 (156 households), and Village 4 (130 households). The government encouraged villagers to cut trees for railroad ties. New markets opened up for charcoal. In the 1950s in Village 5, business interests hired villagers to cut wood in the forest reserve for sale as building materials. Concurrent with these activities, villagers actively cut trees to clear land for agriculture and their personal building needs.

The resulting alarming rate of forest destruction stimulated a more aggressive village response than in Province A (Table 1). While forest types identified in the villages of Province A are also present in Province B, every project village in Province B has a community forest and two of the three have school forests (Table 1). The general pattern in the villages is of more activity in creating organizations, including forest committees in two villages, to make decisions about forest use. These decisions include the development and enforcement of sanctions. In one case (Village 6), the RFD and community leaders worked together to establish a legal structure governing the use of forest resources, with the RFD actually delegating responsibility to the community for developing the framework. In Village 4, the rules developed for the use of the community forest are also applied to the forest reserve, with the village and forestry committees having joint authority over their use. Village 5 has a school forest but there is no indication of school involvement in decisions about its use, nor have teachers seen it as a potential laboratory for teaching purposes.

Development of rules is one thing; implementation is another. While the rate of forest destruction has declined, some community members in all three villages continue to disregard the rules. Forest management practices, especially with respect to forest reserve areas, are also uncommon, although forest regulation (prohibition and fines for tree cutting) is more extensive and has been more effectively enforced. While the RFD provides seedlings each year and villagers, schools, and the temple participate in planting them, nearly all seedlings fail to survive, owing to a lack of followup watering, fertilization, and other forms of needed care. As in Province A, the RFD has provided training to small groups of villagers in fire-fighting techniques. But no specific connection has been made to combating smaller wildfires started by some local villagers, and their effects on forest regeneration.

Potential vs. Actual Projects

In all villages, fifth and sixth grade students visited communities to ask questions about village history and the origins and causes of various forest-related problems. These visits began in the first term of the SFEP's implementation and expanded in number during successive terms, with only a few exceptions. Besides

asking students to gather data from villagers, teachers also began taking students out to nearby forests to study plants and animals as part of their regular science lessons. In several schools, local villagers came along as “experts” to help them understand various species indigenous to that village. After gathering data on village history and a forest-related problem, students reported their findings to villagers in an effort to stimulate discussion of possible small scale projects to address the effects of these problems.

What kinds of school–community projects might have emerged and what projects actually took place? Table 2 compares potential school–community projects identified early in the SFEP by the research team (based on the baseline data collection in each community) with the actual school–community collaborations that occurred during the pilot phase of the SFEP. The following summary focuses on actual projects and collaboration.

Province A

During the third term of the project, the sixth grade teacher in Village 1 reported that a forestry committee had been established as a result of student presentations to focus efforts on the community forest. The next term the students, under his direction, carried out a community survey of issues related to forest protection and management. The most important concern proved to be whether fires set during the dry season might be eliminated. When the findings were presented to the village, both the principal and the village headman made a strong case that the community should adopt this issue as a project. During the fifth term, the villagers organized an elaborate daily volunteer patrol system involving blocks of households contributing persons for each patrol.

In Village 2, existing cooperation between the school, village, and temple broadened and deepened as a result of the school’s focus on involving students in the planting and care of trees in the school forest. The active support of the former principal (who was transferred at the beginning of the fifth term) led to sustained and constructive RFD involvement with the initiative. Students worked side by side with villagers to clear grass and to water and fertilize seedlings. Students used the seedlings as a part of their curriculum, visiting them to measure growth and observe the number and types of leaves as growth occurred. Each student “adopted” a tree seedling by giving it their name (the “my tree” project). In February 1997, however, a brushfire burned down half of the school forest. The sixth grade teacher had the students study the burned area and its effects. Students reported their findings to the villagers and together they decided to replant the area, although the specific species have yet to be determined. The greater involvement of the village committee in this decision reflects the approach of a new principal who is more sympathetic to shared decision-making.

Table 2: Potential Forestry Projects from Baseline Data Analysis and Actual School–Community Projects During Pilot Phase

	Potential projects	Actual projects during pilot phase
Province A		
Village 1	Maintenance of community forest Establishment of school forest Care of seedlings	Established a village forest committee village patrols to prevent setting of groundcover fires
Village 2	Care of seedlings School participation with village in school forest Use of school forest in curriculum	Increased seedling care with RFD input School and community participation in school forest increased Used school forest in curriculum Herb garden at school
Village 3	Establish community forest Establish school forest	Joint committee on forestry issues Established school forest Herb garden at school
Province B		
Village 4	Work with existing forest committees Establish school forest Manage community forests Care of seedlings	Students made and posted signs about negative effects of groundcover forest fires Established forest nature center
Village 5	Work with existing forest committees Manage school forest Manage community forests Care of seedlings	The committee and the school posted signs about negative effects of ground- cover forest fires Students wrote pamphlet on controlling groundcover fires and disseminated to community
Village 6	Work with existing forest committees Manage school forest Manage community forests Care of seedlings	None

The former principal also decided to use a small grant of approximately \$240 to create an herb garden near the school. The sixth grade teacher presented this project to the village committee, which agreed to support it. Students interviewed villagers on what kinds of herbs existed in the village and their uses. Villagers assisted students in making the garden and planting the herbs. Soil problems caused some herb varieties not to grow well and the teacher now plans to have students study the soil

to determine ways to make it more receptive to local herbs or to determine if it is more suitable for other varieties of herbs.

The two teachers in the project became more integrated into various village decision-making structures regarding forest management practices. Along with the former principal, they participated in village committee meetings. This led to a project near the school to increase water availability for villagers during the dry season. Through the education committee, villagers and teachers prepared a proposal to construct a new well for district office consideration.

The students also became involved in a trash cleanup project in the village. While most of the activity was carried out by eighth grade students as a part of their project for a social studies class at a nearby rural secondary school, sixth grade students at the school made a presentation about the problem to villagers. They also participated in cleanups, helped dig a trash pit, posted signs, and held conversations with parents about the need to keep the village clean. The teacher in the eighth grade was also a participant in the SFEP.

Another example of school–village cooperation came after the pilot phase concluded. Under the auspices of the Bangkok Police Department’s Office for Community Development and Community Relations, the village decided to participate in a national competition that sought to identify new and innovative practices in these areas. The focus of Village 2’s project was the role villagers now played in the education of their children. The village won 1st prize at the regional level.

The sixth grade teacher identified tree cutting practices as a major problem early in the project, and wanted to focus village attention on this issue. He did not know how to accomplish this, however. The former principal was quite active in supporting the SFEP in his school and took a leadership role in explaining its goals and objectives to villagers and encouraging their support of, although not necessarily their participation in key decisions. He had some initial reservations about focusing on tree cutting, which he expressed during the second term of the project. He felt school involvement might disturb some locally powerful forces involved in illegal logging. In his final exit interview for the project, the teacher involved in this project said that wood cutting in the village had declined as a result of student activities to make villagers aware of forestry issues and their contributions to trash cleanup efforts. Some villagers also reported that tree cutting activities had declined and forests in general were improving.

At Village 3, the most significant project to emerge from the school’s interaction with the community was to establish a joint committee on forestry issues. During the third term of the project, the four participating teachers from the school decided this was perhaps the only way to address the political difficulties of working

in this community. Prior to the beginning of the SFEP, several teachers had raised the ire of the village headman and some of his supporters by encouraging villagers to be wary of vote buying as the national election neared. While this headman was later removed and another elected in his place, village factions still remained as well as a legacy of tension between some villagers (led by the former headman) and the school. Illegal logging and the forces behind such activities also contributed to teacher reticence to become too directly involved in local forestry issues. After student presentations on lessons learned from a study of village history and the current condition of forest resources, the teachers broached the idea of such a committee. The villagers agreed and divided up duties according to areas identified in student reports.

One of the first activities was to identify and convert 120 acres of the reserve forest to a school forest, and to clear the leaves and grass from a part of the area. Following this, villagers used a tractor to improve the “road” to this area. Students also posted signs on trees indicating that they should not be cut. Villagers also made a fire break around the area. Villagers indicated that they would like the school to set up a tree nursery so they would no longer be dependent on the RFD for seedlings, since they do not bring them every year. In the term following the end of the pilot project, the school created a tree nursery in the school forest and plans are underway to develop a more effective program of seedling care.

The school also established an herb garden. As in the case of Village 2, teachers involved villagers in identifying important local herbs, taught about the uses of such plants, and helped students plant and care for them.

The term following completion of the pilot phase of the project, teachers and villagers participating on the new forest committee decided to expand membership to include villagers from an adjacent village so they might become involved in various forest management activities. They also extended invitations to students from the school who had graduated and were continuing their studies at the lower secondary school, as they had participated in environmental projects under the SFEP in an eighth grade social studies class. Finally, the committee discussed and approved the teachers’ and students’ idea of developing a pamphlet describing the need for various forest management practices to distribute to villagers.

One concern developed that related to earlier political factionalism, however. Two very active village members of the committee decided to run for the same office at the subdistrict (tambon) level. Since each belongs to a different party and one is the new village headman, teachers are concerned that strained relations among villagers may emerge and affect the activities of the committee (Interview, Ministry of Education official, May 9, 1997).

Changes have occurred with respect to tree cutting. One of the sixth grade teachers reported that influential business people in the community who were involved in cutting trees began to change their thinking in the direction of preserving the forests and cooperating with the school. This helped reduce the teacher's concern with respect to crossing influential people in the village, and led her to believe that with time even changes in this sensitive area can occur.

Province B

At Village 4, the sixth grade teacher had students study the issue of controlled forest ground burning i.e., fires during the dry season, during the third term of the pilot. Both the village headman and the temple abbot strongly supported an initiative in this area. After student presentations to the community, the students put up signs in the forest to discourage such activity. The village headman encouraged the sixth grade teacher to make an audio tape of the problem and suggest what should be done, with the promise that it would be played over the community audio system at regular intervals during the dry season. The tape was never developed. During the fourth term, there was no continuation of the project from the school. During the fifth term, the students again looked at the issue, made a presentation to the village and again put up signs. The sixth grade teacher sought RFD assistance in providing information to villagers and specific training in how to prevent such fires as important, but he did not contact the district office.

During the fifth term and continuing past the end of the pilot period, the sixth grade teacher initiated discussions with the village headman about creating a nature center on forestry issues, the purpose of which would be to provide information to villagers about forest preservation, create a resting stop for students and villagers as they went out into the forest, and explain with pictures and other materials the different kinds of trees in the area. The village committee approved funds for this center and construction has begun. In addition to information about forest preservation, the sixth grade teacher plans to build an herb garden next to the center to involve villagers in educating students about local herbs and their uses.

At Village 5, the sixth grade teacher had numerous ideas for projects, but did not follow up beyond student presentations and discussions with villagers on possible next steps. During the third term, as the result of student findings on the decline of forests, he considered encouraging villagers to plant eucalyptus trees. When he learned that these might have deleterious effects on water supplies and soil quality, he dropped the idea. He then considered proposing a community woodlot project involving both short term growth and long term growth trees. This was never discussed with villagers. Then he brought up the issue of forest groundcover burning, in part as an outgrowth of conversations with the sixth grade teacher in Village 4. In a meeting with the village committee, this issue received considerable discussion and support. The sixth grade teacher tried unsuccessfully to get district RFD officials to

attend a meeting to provide technical information about what might be done, but the timing of his request came at their busiest period of forest fire monitoring activities and they could not meet with him or the village committee. He did, however, obtain written materials from the district office, which he shared with the village committee. Plans were made and carried out for students to put up signs. Students also developed a pamphlet describing the effects of groundcover burning on forest regeneration and distributed it to families in the village. Periodically discussions continue on the possibility of undertaking an organized project.

At the school in Village 6, students made two presentations to a small number of community members during the third and fourth terms of the pilot, when discussion focused on the possibility of doing a project on forest groundcover burning. During the fifth term students transplanted some banana trees and other species from one villager's home to the school and to their own homes. Otherwise no activities took place beyond student study of village history and the consequences of wildfires. Except for the second term, the sixth grade teacher was not deeply engaged in the project, confining most of his activity to having students study data collected by previous classes. Besides a weak commitment to the project, his reticence stemmed from several sources. Within the school during the entire period of the pilot, this teacher had a number of other responsibilities, that detracted from his ability to do the project. This teacher also did not feel comfortable with the current village headman whom he suspects is more interested in his brick-making business than community issues. The result has been community dissension, which, in his view, has made the prospects of getting community support more difficult. This concern was reinforced when he and the fifth grade teacher invited the community to a student presentation. Only a handful of villagers came, and both teachers interpreted this as a sign that villagers did not place much value on this kind of activity. However, villagers who did attend were vocally supportive of school involvement in a community project. Especially salient to these villagers was the pollution (air and water for rice paddies) from a nearby pig farm that had recently been established. During the discussions following the students' presentation, villagers also expressed interest in a forest groundcover burning project. Without active involvement by a sixth grade teacher, however, no real project with the village emerged. Responsibility fell to the fifth grade teacher for organizing most visits to the community. His level of effort in having students study local history proved remarkable when compared to other fifth grade teachers who were all active in the SFEP. But his approach to education and involvement with the community mitigated against assuming a leadership role in developing a community project. As a science teacher who usually taught lower secondary students, he was skeptical of the knowledge villagers could contribute and how much they could understand if the causes of a problem were presented in depth. In his view, the solution to forestry issues might take ten years or more and villagers would have to see immediate results if they were to give up valuable time that might otherwise be used to provide for daily needs. He also felt it

would be difficult to coordinate school participation with villager schedules and those of outside organizations. In his view the best role the school could play was to “get the students to think and understand about the forests, or whatever, and be responsible so they do not do these things they should not do” (Final exit interview p. 10). He felt a project with the community might be accomplished in a minimal way, but about 80 percent of the effort should be devoted to changing the teaching and learning process by using information from the village.

Summary of Projects

Results in Province A ranged from implementation of a large scale project at Village 1 to reduce forest groundcover burning to smaller projects over a range of issues at Village 2 and Village 3. In Province B results ranged from public awareness campaigns about forest groundcover burning at Villages 4 and 5 to no project at Village 6. In some cases, the projects implemented matched possible projects identified in the baseline; in others they did not.

3. COMMON THEMES

After two and a half years of the SFEP, what sense did villagers make of these activities? What insights did they have about increased collaboration between their school and community? The final set of focus groups with villagers gauged their reactions to all aspects of the SFEP. Five common themes arise from villager comments about project implementation and effects.

THEME 1: A BETTER WAY TO TEACH—COMMUNITY PERCEPTIONS OF STUDENT INTERVIEWS AND PRESENTATIONS

To meet project objectives of involving students in studies of local problems related to forests, the teaching and learning process in classrooms needed to change. Instead of teacher-centered instruction, more active student participation in the learning process was required. Instead of factual rote learning, more constructivist forms of learning, in which students and teachers jointly created understandings, needed to take place. Teachers needed to learn to:

- plan lessons differently, relying less on lesson plans manufactured by the Ministry of Education and more on their own understanding of key components of the curriculum and how field studies might promote better student understanding;
- develop and use locally constructed materials that would directly relate to the content being taught;
- expand and improve their own knowledge of forestry concepts, so they could better explain concepts and provide good answers to student questions; and
- venture out to their community, establish contacts, explain the purpose of the project, facilitate arrangements for interviews and other forms of data collection, work with local villagers on planning presentations and, subsequently, the implementation of various projects.

All communities supported this new form of teaching and learning. While clearly present in Village 6, support in the remaining five villages was more defined and enthusiastic. Community members understood this to be a new form of teaching and learning and strongly supported the process skills and academic content students were learning. Compared with the education they had received, they felt such learning was more useful in building knowledge and would be more relevant later when students became adults. Villagers learned they had much to contribute to the education of their youth, beyond the traditional role of providing labor and money

for the school. Finally, villagers believed that such an approach to teaching and learning, including collaborative projects, could increase the chance that village problems, especially the management of forest resources, would be effectively addressed over the coming years.

Process Skills

Student willingness to “dare to speak” was a major result of the project. The ability to stand in front of a group and present ideas emerged as a valued skill among villagers, a skill that as adults felt they often lacked. Besides daring to speak, villagers commented favorably on student ability to collect data and present findings. Villagers commented on students’ manners and their knowledge of polite behavior. Villagers also felt that this approach to teaching and learning promoted a better classroom environment than what they had experienced as students.

Daring to Speak

Village 1

V1: It’s great that they had the students express themselves like this.

It’s great.

V2: This is the students’ own self-expression.

V1: Sometimes, we have to listen to the students because they should be listened to. We can’t do what they are doing, speaking well in front of people, that is. This is very good.

V2: All I have to do is hold the microphone and my hands shake.

All: Laughter

V3: The students show their daring.

Collecting Data and Making Presentations

Village 5

V1: We are happy that they can speak well.

V2: Once the students have collected their data, they come and explain them to us. We are impressed with them.

M (Moderator): Exactly what are you impressed with?

V2: That they are good, speak well, and know things.

V1: The students dare to express themselves and they can speak in an organized way.

Student Manners

Village 5

M: How have [students] improved?

V1: Good means that the students have gotten to practice their manners and the temple, school, and village have not abandoned each other.

Village 1

V1: They [students] always had good manners when they came to the house. They always *wai ed* well and asked for permission to interview. I always helped make them comfortable and if they had any questions, they could ask.

A Better Classroom Environment

Village 2

V1: Teaching and learning now is not like in the past when the students were all afraid of the teachers. The teachers ordered the students to do something, which they did because they were afraid of the teacher. Now, the teachers are like mentors.

V2: Yes, they are consultants.

V1: Yes, we see it like this because now the teachers and students can work together. Before, the teachers were not comfortable with the students like this.

Content

Villagers were especially impressed with increased student content knowledge. They understood that students today attend school for more years but they felt students were better prepared because of the new way of teaching and learning. Villagers viewed this kind of learning as superior to what they experienced and saw it as contributing to student improvement in subjects beyond science and social studies. Villagers approved because the new teaching and learning, in their eyes, linked in-school learning with out-of-school learning in ways that made education more relevant.

Content Learned

Village 6

M: Who benefits from these things?

V1: It's good, of course. The students get good things. Especially for the students it's good. (Villagers 2-4 all nod heads in agreement).

M: How is it good for the students?

V1: In several ways. First they can take this and apply it. What they get from interviewing us they can go and apply. They can write it up into essays or stories.

Linking In-School Learning and Out-of-School Learning

Village 3

V1: How is it good?...[W]ell, teaching and learning in the past and in the present are different. In the present, the students get to learn about the environment. They have reading and math and now they learn about the environment and rivers together. In the past they did

not have this. They just had books and notebooks for learning. Now, all these things go together. I really agree with this kind of learning.

M: What do you think, Mr. ...?

V2: It's good. The students like to go out and ask people. They ask about what things were like in the past such as the forests in the village and whether there were big trees because in the present they see just small trees. So, I told them that in the past it was not necessary to go far to see big trees. One person could not reach all the way around the big trees. There were all kinds of trees. Now, there are mostly small trees. There are not many big trees now for people to see. The forests have degraded little by little. In the past, people did not have work to do so they cut trees for work. That was possible then.

V3: [Teachers] want to do it because we have to all work together. The teachers have said that they do this because they want the students to learn a variety of things. The villagers know many things and they have a lot of experience. In the present if one just knows things in books, some are stupid as water buffalo. They just stay at home and don't have any work.

Vs4-6: Laughter.

V7: They have knowledge but they don't work. They just know what is in books, but they don't do anything. They don't know what is right next to them. The students these days have a good method of studying because they learn about things around them. People our age have not gotten to do any of these things.

Valuable Knowledge Moves from and to the School

Villagers saw students as having knowledge that is important and useful to them in their efforts to improve their villages. On the one hand, this knowledge provided valuable information that villagers would otherwise not have access to.

Village 5

V1: The students talked to us about the effects of forest fires such as the fact that the soil gets destroyed and that so much heat is produced that the greenhouse effect results. This is something that we did not study in school, so we have never thought about to what extent these effects can occur. So it is a good thing that the students have come to interview because we learn new things. This is how I feel about this and how the students give knowledge to us big people. It is not just that the students learn from us. We don't just give information to them.

On the other hand, villagers saw that they also have much to contribute to the learning process and they clearly expressed the importance of that knowledge. They

felt they were able to help students understand village history, to understand the forests and the uses of different plants and trees. In addition, they expressed views that villager knowledge is superior in some ways to teacher knowledge.

Village 2

V1: In reality, the teachers know what is in the books, but the villagers have experience. They know from doing. The teachers cannot come and do like us.

V2: There are different kinds of knowledge.

V3: They really can't do it.

V2: The teachers teach from books.

V1: The teachers cannot do things related to agriculture. They just know theory.

Community members in two villages indicated that they would have no problem in correcting, helping students better understand, or adding to material presented at formal meetings.

Village 4

V1: When we went [to the student presentation], it was to check what they had collected in the village. Did we disagree or not?

V2: Yes.

M: That means that if they say something incorrect, you all can contradict them?

V2: Yes, we can tell them they are wrong.

V1: In order to make sure everything is correct.

Village 3

V1: We added to what they said. Whatever was still lacking or was wrong or where the content of what the students said was not yet complete we added. For example, about the community forest, the environment, the trees, and animals, for example.

M: So, you mean that what the students talked about was not correct so you had to correct them right there?

V1: (nods head in agreement).

THEME 2: CREATING CONDITIONS FOR SCHOOL–COMMUNITY PROJECTS

Communities in the pilot project faced serious environmental problems: forest degeneration and generally ineffectual tree planting practices; tree cutting (sometimes illegal); forest groundcover burning; water shortages; trash littering; and a

nearby pig farm with its smell and pollution effects on streams and rice crops. Communities, to varying degrees, were aware of these problems and had been addressing a number of them. Strategies ranged from ineffective verbal pronouncements to rules and fine systems that had slowed but not stopped exploitative practices. Part of the problem lay in activities from outsiders or by residents from other villages, over which the community had little control. Many of the causes of exploitation, however, lay within the community's own borders, through their own practices and those of their neighbors.

The SFEP viewed the community as a resource to improve the quality of teaching and learning. Community members, including those from Village 6, responded positively to the opportunity to participate through interviews and attendance at student presentations. In Village 4, members of the village committee even took students to the forest for additional instruction. A major goal of this project, however, was to encourage the school to become more integrated into community life by acting as a resource for improving the capacity of the community to address its own resource management problems.

Focus group interviews revealed a set of latent conditions within each community that could be tapped to support the school's involvement in community development. The interviews also showed that the process of conducting interviews and collecting data created a second set of conditions that could combine with the first to make involvement more possible.

Latent Conditions Supporting School Involvement in Community Development

School Involvement as One of Three Pillars

In rural Thai villages, there are three major institutions: the elected village headman (and sometimes assistant headman), the temple with the abbot as its spokesperson, and the school. One of the principal's major functions is to represent the school in community deliberations. The belief is that common problems require common action by actors from all three institutions. Thus, across villages, great emphasis was given to the need for all three components of the village to work together.

Village 5

M: So, in sum, here there is the temple, the school, and the villagers who are all responsible together....

V1: These are the three pillars, which have been like this since the time of our grandparents. These three have been working on activities together. If any one of these pillars is missing, one cannot do the work.

Village 2

V1: There are three parts.

V2: The village, the temple, and the school. There must be continual coordination between all three sides.

V3: Yes, all three must work together all the time.

Village 1

V1: When there is a meeting, every side must come. That includes the headman, the abbot, and the principal. These three sides must work for development. If it is not like this, nothing will work.

This view of how common problems should be addressed is embedded in a historical set of relationships between Thai rural communities and their primary schools. While government policy called for compulsory primary education as early as 1921, it was not until the mid-1980s that this became a reality. By then enough schools had been built and enough teachers trained so that now approximately 96 percent of school-aged children are currently enrolled in primary school, which encompasses grades 1–6 and a pre-primary program in most schools.

A clear status difference prevails between rural primary schools and their communities. Teachers seldom, if ever, use local resources in their teaching. Indigenous knowledge is generally seen as irrelevant to the curriculum mandated from Bangkok. Nevertheless, there exists a strong reservoir of good will towards and support for schools. Parents see schools as providing opportunities for students to gain knowledge needed for later employment. Communities are proud to have a primary school built with government funds in or very near their village. Besides providing uniforms and school supplies for their children (there are no tuition fees for primary schools in Thailand), villagers routinely donate labor and raise funds for the school. Sport Days, Mother's Day, and other activities routinely lead to large community participation. Schools have an education committee, consisting of parents, local leaders and the principal. Such committees are kept informed of school needs and help mobilize attendance at periodic meetings where school issues are discussed. While few teachers live in communities where their school is located, villagers may approach teachers for assistance in filling out government forms or petitioning the government on an issue. For funerals and other events such as religious holidays, teachers make contributions and often attend. Students often participate by serving refreshments. Since Buddhism is the national religion, the village abbot may provide religious and moral instruction at the school and serves as the moral leader of the community. The following comments indicate the latent support for school and education that existed in all communities in the project. This set of interlocking relationships and traditional support is an important contextual factor for possible school involvement in community development.

Village 1

V1: The teacher can invite the committee and the village headman to help with whatever they need, such as cooperation for sports or building projects or whatever. They can ask and we will do the public relations between the school and the other villagers. There could be meetings with the heads of the house groups or a big meeting at the temple.

V2: In this respect, this is our own duty. If and when we do not give good cooperation with the school, it is not good. When the teachers or principal present something and ask for our help, we have to provide it.

Local Responsibility

Villagers believed that if local problems were to be addressed, the responsibility rests with the villagers. This notion went beyond simply acknowledging responsibility. While villagers believed that outside assistance from one or more government ministries was warranted and would contribute substantially to helping solve a particular problem, they were profoundly skeptical that such support would ever materialize. Villagers viewed government agencies as generally unresponsive, promising support that never came, or interested more in regulating what villagers were doing than in helping them meet various resource needs. For example, villagers reported the RFD typically delivered seedlings and simply told villagers to plant them without adequate training in planting or care practices. While they appreciated the seedlings, the approach and the lack of adequate training may explain the general lack of villager commitment to this activity. Village 2 is an exception, however. In that village, principal contacts with the RFD led to ongoing support and assistance on which villagers commented favorably.

Since most villagers felt they had to rely on their own resources, school interest in becoming a part of such efforts had the potential for community support. Students could act as the “eyes and ears” of the village, alerting it to people who set fires or cut trees illegally. They could participate with villagers in caring for seedlings, helping to clear grass, caring for a tree nursery, or putting up signs.

Type of Issue and the Ongoing Stream of Policy

Environmental resources represent collective goods, and thus the benefits of promoting environmental protection affect all members of a community, in contrast to policies where benefits go to one or more segments of society. It is difficult to be “against” environmental concerns since all citizens need clean air to breathe, clean water to drink, and unpolluted soil for growing crops.

Interest in protecting forest resources in five of the six villages has been an important policy goal for several decades (Village 3 in Province A represents the one

exception, where activity focused only on forest resources directly in the village). While serious problems remain, progress has been made in slowing forest destruction. Moreover, villagers in communities expressed the need to preserve their forests for the next generation. Thus when students came to interview villagers about forest management issues and encouraged villagers to develop new initiatives, their requests entered a favorable policy environment.

Village 5

V1: Really, this kind of project was set up in the village a while ago, even a long time ago...during the village headman's time. That is three generations of headmen ago maybe 30 years. Since then, there have been efforts at preserving the forests. The teachers and students saw this and thought it was good, so they got involved in the project, too. It is not the case that the villagers went to get involved with the students. Rather, the students came to get involved with the villagers.

Village 1

V1: Like the community forest, we got a policy from the Government which said that every village has to have a community forest, but we already had one, so we had to work together to take care of it. Ways of keeping people from destroying the waterways and make sure the trees don't disappear...If we don't work together to instill good thinking or give suggestions or try to spread the word with the children, the trees will and waterways might disappear. We have been working pretty well at preserving what we have already.

Creating Conditions for School Involvement in Community Development

Student interviews and presentations had a mobilizing effect on communities by pointing out discrepancies between villagers' words and actual behavior. The effect of studying these problems brought them to the attention of the community in a way that had not been done before and forced people to consider that many of the causes of exploitation might come from within their own community. These factors taken together created the conditions for some kind of school-community collaboration.

Village 3

V1: At first, we forgot about all of this because the first time the students came out to interview, we did not think of anything or that they would do anything with the data like try to solve these problems. We forgot because as adults, we each just worry about our own things and own burdens in our own families. These things make us forget. Once the students came and asked about the condition of the forests in the past along with water and animals it was the old people

who told them about these things. The students wrote it all down and once they got about a month's worth of data they held a meeting and invited the villagers to attend. The students took this problem and talked about it. They summarized everything out in reports with pictures and showed us various problems. We were surprised when we thought and realized that things really were like the students said they were.

M: But, really, you all knew all this, but you had not really thought of it much, right?

V1: Yes, we have not thought of it.

V2: We are the people who cut the trees, so we have not thought of these things at all.

V3: The generation of the students' parents are the ones who cut the trees.

V4: They [villagers] feel ashamed when they see the students draw pictures where there are just tree stumps instead of trees. We are ashamed as we are the ones who have cut them all. We have done that ourselves.

Village 5

M: And what do those people who are interviewed get?

V1: Sometimes, after we have answered we ask ourselves if it can be done or not. Or else, if we tell the students something but we don't actually implement those things...we will be ashamed when the students know. So we see the importance of the project and the things in which they are interested in like forest fires...

M: And some people are embarrassed that they cannot do the things they tell the students.

V1: Yes, they are embarrassed. If we cut just one tree we wonder what we will talk about with the students when they come.

School–Community Dynamics

Mobilizing community support for projects to address forest management issues and other environmental problems requires more than simply bringing the issue to the attention of villagers and encouraging self-reflection. Whether such efforts will actually tap into latent community support depends on at least three other factors as well.

Active Village and School Leadership

Where village headmen and school principals actively supported teachers as they sought to engage community members in a possible project, the conditions for involvement became more favorable than in communities where such support was less active. Village 4's headman, for example saw the school's interest in working

with villagers to control forest groundcover burning as an opportunity to increase village attention to the need for forest preservation. In Village 1, the village headman saw the school's initiative in this area in the same light. His strong support during the village meeting where a response to school findings was discussed played a major role in starting the monitoring project. In contrast, village factional disputes in Village 3 created uncertainty among teachers as to the possibility for engaging in some kind of project, which contributed to their decision to first create a school-community committee to work on forestry issues.

Active principal support represented a similar condition. In Village 2, the principal worked diligently to create community understanding of the project and provided strong moral support for both participating teachers in his school. Similarly Village 4's principal worked closely with both the village headman and the abbot to gain community understanding and support for student initiatives. His strained relationship with the sixth grade teacher, however, created some difficulties in implementing a community project. In the other four schools, principals did not provide active support for teachers, although the principal at Village 1 did play an important role at the village meeting where the issue of forest groundcover burning was discussed, and his support contributed to the village's adoption of a vigorous monitoring program. In general, principals left it to individual teachers to set their levels of involvement with the project and interactions with the community.

Teacher Commitment, Staff Development, and Supervision

Involvement in a community project represented the final stage of a complex process of change. Where teachers, such as the sixth grade teacher in Village 6 or a fifth grade teacher in Village 1, made only small changes in their practice, the prospects for developing a project with the community or carrying out studies of local history were much smaller. The conditions to encourage active teacher engagement have been reported elsewhere (Wheeler, et al., 1997a,b). Some of their implications will be discussed below in the section on lessons learned.

Understanding the Incremental Nature of Change

The SFEP was designed with the belief that managing the changes required for teachers in this project would be complex and difficult. Thus over the five terms of the pilot, new expectations were put in place for each new term. Proceeding incrementally allowed teachers to master one set of tasks before proceeding to another.

A similar process, although unplanned, seems to have been operating with villagers, who took time to understand what the students were trying to accomplish with their field visits. Once they saw the results in terms of student learning and engagement, and as they began to see the implications for working on issues central to village survival, they could see advantages in supporting small scale projects.

Summary

Initiating and carrying out projects in local communities are difficult and complex tasks. Focus groups and other methods of data collection identified nine factors that created the conditions for such involvement:

- Latent support existing in communities, including:
 - the view of the school as one of three pillars of a rural village;
 - the feeling that solutions to local problems would likely have to come from within the village and that outside support could not be counted on; and
 - a history of village efforts to address forest management issues.
- The mobilizing effects of student interviews, including:
 - bringing issues to the attention of villagers;
 - stimulating soul-searching and
 - raising the saliency of environmental issues.
- Factors related to school–community dynamics, including:
 - school and village leadership and support for such a role for the school;
 - teacher commitment; and
 - understanding the need for an incremental approach to change.

THEME 3: CHANGES IN SCHOOL–COMMUNITY RELATIONS

In Thai communities, there is a strong reservoir of good will and support for schools. Parents see schools as an opportunity for their children to gain skills needed to move from the agricultural sector to other kinds of employment. They are proud to have a primary or secondary school in their community. They view teachers and administrators as having knowledge superior to their own and they show considerable respect to school officials. The school as a government institution is shrouded in the general mystique accorded agencies with origins in Bangkok. These attitudes translate into financial and in kind support for schools, participation in celebrations and a reluctance to assert influence over classroom or curricular matters. The communities in the SFEP project shared this traditional approach to school–community relations. However, the project has changed the nature of these relationships.

All schools conducted interviews in the community and made presentations on their findings to community members. While villagers across communities expressed support for this new kind of teaching and learning, three patterns emerged when discussions turned to school–community collaboration on projects and their effects on relations between schools and communities. If the school actually worked with the community to plan and carry out a project and the level of school participation once that project was underway was high, villager enthusiasm was also high and school–community relations improved significantly.

Pattern 1: School–community collaboration with high levels of teacher involvement

Pattern one is characterized by high levels of villager enthusiasm for the new form of teaching and learning. High levels of enthusiasm were evident in villager reactions to the projects and activities students carried out or were involved with. Community support reflects the greater presence of students in the village as they gathered data on both history and a specific issue and carried out at least some kind of project to address one or more forest-related issues as well as other environmental problems, e.g., trash littering.

In the four villages exhibiting this pattern students followed up presentations with a range of activities in collaboration with their communities. Villagers responded with enthusiasm both to the data collection and the followup activities. They saw this kind of participation as supporting the organic view of decision-making, involving the three pillars of society they felt was the appropriate way to solve problems. As a result, relations improved between the school and the community. Villagers believed that such activity contributed to forest preservation and the production of a new generation of community leaders. Each of these themes is present in focus group comments by villagers.

Community Reaction

Village 2

[What have villagers gotten?]

V2: If you talk about getting something, we have gotten hope. Hope that ten years in the future, there will be a forest behind the school.

V5: We will get forests, which are the source of water.

V2: It's a hope a...dream.

V6: The forest will come back.

M: Do you think the students will be able to do it or not?

V7: We will work on it together. The students don't go into the forests to destroy the trees...

V2: Because it is not just the students who work on the project.

There are adults who are participating, too. All sides help each other.

Responses to Student Projects

Village 3

V1: Once the students had come to motivate the adults in the village, there was a meeting held in which the organization was set up. For example, Mr...and Mr...are in the organization.

V2: Yes, after we all attended the seminar or meeting at the school, these issues were brought up in the village meeting. Another village committee was set up that asked about the problems the villagers had been experiencing. At that time, the students were not present.

We set up the committee together and made it into an organization where we divided up the duties amongst ourselves, which were identified from the data that the students presented about the opinions of adults in the village.

What I would like to thank the kids most for is that they made it possible for there to be an organization...which is responsible for the forests to be created in the village. I would like to thank the kids a lot because if the students were not there to push for this the villagers would have just been passive.

Village 5

V1: ...I think that the villagers must agree with this method in the project. They must agree with a project that benefits the community and the nation. The villagers cooperate by helping to preserve the forests and animals and working together on activities in the village and community. These are responses to the project that the students are doing now. But, these are not just responses to the project, but we see that this project is truly beneficial. So far we have been able to do some of the things in the project, like put up signs in the forests that encourage people not to hunt animals or cut trees.

M: Who was it that did the activity with the signs?

V1: The village committee thought of it and the committee and the teachers worked together to put them up.

V2: The students know quite a lot about this area, more than their parents and more than me even. When the students learn new things from the teacher and then learn from us here in the village, they go back and learn more from the teacher...In the present, these little students help in putting out fires, especially during the dry season...The villagers don't know yet and don't yet understand in-depth what the effects of forest fires are...

Village 4

V1: Before, the students never came and never participated at all. The school was just the school and the village was just the village. Each looked after itself. But, now that the project came and we have been taking care of the forests, we have been working together more. Things have improved little by little. In some cases, the students can teach adults; for example, they tell adults that if they go out to the forest, they should not cut trees and that we should work together to preserve the forest.

Change in School–Community Relations

Village 3

V1: In reality, the teachers in the present are different than those in the past. In the past, they were mostly single women and when there were activities or things in the village they would come to help. They could all get along well with the villagers. In the present, the teachers have to be responsible for their families...so this created some distance between the teachers and the villagers. From that point the villagers began to not know the teachers. Once this project came to the school in the last 2–3 years things have begun to move back toward like they were before because when the villagers have meetings they invite the teachers to come and talk. This has made the teachers and villagers become closer together than before.

Pattern 2: School–community collaboration with declining teacher involvement

Pattern two relates specifically to Village 1, in Province A. While student presence in the community was high during the data collection stage and resulted in strong community praise, student involvement tapered off during the project implementation phase when patrols were established to monitor the outbreak of groundcover fires and villagers worked to put out blazes that occurred. Most notably, however, was the absence of teacher participation in village discussions regarding a number of important technical issues as leaves accumulated and the danger of a serious fire increased (which happened). The absence of teacher participation also meant they played no role in village discussions on the opportunity costs of their elaborate monitoring system. As a result, villagers expressed some frustration with the school.

While villagers expressed frustration over a range of issues, part of their criticism focused on the school, and particularly the teachers. Besides the lack of any substantial teacher involvement during the project implementation phase, villagers expressed the feeling that the school had gotten them into this project and then left it up to them to carry it out. This feeling, if widespread, could affect the community's view of future school involvement with community projects.

The most important school contribution was to act as a catalyst for the project in the village. After students interviewed villagers about forest-related issues during the second term, the sixth grade teacher had the students conduct a village survey during the third term to determine a rank ordering of community preferences on what issue the school might work on with the community. Forest groundcover burning ranked first. During the fourth term, the principal and village headman discussed the planned presentation to the community and the initiation of a possible project. The leadership saw a focus on preventing forest groundcover burning as an issue, which

fit nicely with the overall goal of preserving forests by limiting cutting through a system of extensive fines and regulations. At the village meeting, following the students' presentation, the village headman spoke about the need to address the groundcover burning issue. The principal also spoke about the importance of the issue from his perspective of teaching and learning. The result was village consensus that a monitoring program would be developed to control burning activities.

The patrol system set in motion affected all villagers and required considerable resources. Twenty-four villagers a day were patrolling the forest from the beginning of March to mid-April. But the patrol project also generated interest and excitement. This led to some villagers to monitor the forests for groundcover burning on their own. As a result the number of fires declined.

The fires that did occur were fewer in number. Some occurred at night, after the patrols were over. Others were started during the day, but the patrol system alerted villagers, who turned out in large numbers to beat out the fires with branches and wet shirts. More than one villager reported, however, that while the fires were fewer in number and more limited in space, they were more intense and caused greater damage.

The patrol system ended in mid-April at the time of Thailand's biggest holiday, Songkran, which is a time for families to visit their relatives in other villages, towns, and cities. Since many villagers planned to be away, the village leadership decided to end the patrol system. Several days into the festivities, a large fire started north of the village which caused severe and extensive damage before being brought under control.

Ironically, the initial success of the patrol system created the conditions for the large fire and subsequent villager concern over the utility of the entire effort. Reducing the number of fires through the patrols led to rapid accumulation of leaves and dry grass. The villagers had not made plans to rake or otherwise dispose of the leaves and dry grass. Once the patrols had ended, conditions were ripe for a serious fire.

Villager questions about the utility of the fire patrol project also reflected the costs they incurred compared to the benefits. Giving up an entire workday represented a considerable sacrifice for many villagers. While the leadership had the authority to create a patrol system that required the contribution of villager time, support for such a program had worn thin by the end of the project. As one villager put it:

Next year, if this project is still being done, I will point this out and tell everyone that this has not produced any good results. This has wasted everyone's time for no reason.

Where were the teachers as this situation evolved? Focus group interviews make clear that as the project proceeded villagers became increasingly aware of the potential problem created by leaf accumulation. There were discussions of what might be done, but no decisions were made about what to do. Similarly, concerns were raised about the effects of leaf accumulation and the lack of fires on the likely growth of mushrooms. Villagers faced these issues alone, without the help of any technical expertise from the school or any effort by the school to connect villagers with other sources of expertise.

Once the project was announced and underway, the teachers and students made and put up signs that said forest fires were not good and that villagers should not start them. They built some fire breaks near the school to prevent damage if a fire should occur in the nearby forest. The two teachers participating in the project came to a number of the fires that were set during the day, sometimes with students but always after they were put out, with cameras to take pictures of villagers at work (to later villager derision during focus groups). They also encouraged students to participate in patrols in their individual capacity as members of household groups. Once the project was underway, however, these teachers no longer came to village meetings where some of the technical problems described above were discussed. As a result, villagers felt the school had encouraged them to take on a project but had left it entirely to the villagers to carry out.

M: How do you all feel about what the role of the school should be other than taking pictures in a project like this?

V1: I have not seen them do anything at all...In normal cases, the fire is already out when they come...

V2: They have not helped anything at all...

V3: Really, the preservation project is the village's, but the burning project is the school's.

V4: The village headman and the villagers are responsible...

V5: The school plays a part, but in reality it is the villagers who have to do the most by going out...

V6: What will the teachers be responsible for?

Several Vs: They are not responsible for anything...

V2: Like this, [teachers] give a suggestion...The ideas come from the teachers and then the villagers just do it...

Pattern Three: No School–Community Collaboration

Pattern three is exhibited by Village 6, in Province B. In this community, students focused on interviewing villagers. Most of the contact came through fifth grade students who visited the community more regularly than sixth grade students. They focused their investigations on village history and occupations more than actual forest management problems. Sixth grade students presented findings regard-

ing the effects of forest groundcover burning and argued for the creation of a committee to develop a program to combat its effects. Villagers were supportive of such action, but there was no further followup by the school and the matter was dropped. In addition, in both fifth and sixth grades students carried out some tree planting activities in the school area and at their homes, but did not involve the community in either of these activities. As a result of this lower level of activity, villagers demonstrated much less understanding of the community development component of the project and expressed strong sentiments that they wanted the school to go beyond just interviews to working more actively with the community. What were the consequences for relations between the school and community?

Confusion

At most, villagers saw such interviewing as simply supplementing what students were learning in school. A number of villagers, however, were not even sure about this, expressing confusion over the goals and curiosity about what the data were to be used for.

V1: We don't know what they want to happen.

V2: That's it. We don't know what they want to happen.

V3: They just come to interview...Once they finish their interview they just go. They come to do this and that, they never say.

V4: I don't know. The students come out to interview me...I think it would be good if they told us what they were using this for. But, as it stands, now, we don't know at all.

According to village leaders, such interviewing had educational benefits, but in terms of the community, it did not seem to lead anywhere, since the school had not followed up on its presentation about forest groundcover burning.

V1: They have held meetings at the school

V2: Yeh, meetings at the school. Last year there was that one time...

V3: It was something about pollution.

V2: No it wasn't. It was about the project about fires. Something like that. They were going to do something...I don't remember. But, it was kind of like in '36 [Thai calendar] when they started that project about forest fire prevention and then they had that other thing about planting trees.

V4: They wanted to set up a committee for fire protection.

V5: The basic idea for it must have come from the old people they went out to interview.

V2: These past two years, there have just been interviews conducted by the students. They did not actually help to do anything, though.

We know that there are some things, which are supposed to be done

sometime, but they have not yet been done at all. During the last meeting with the students they all said that things would be done, but they have not yet been done. All that happened was that a schedule was made up...

M: But, you all heard about these things?

V2: Yes, we know about them, but nothing has yet been done at all. It has just been talk so far.

The result was a sense of frustration on the part of villagers.

V1: They are just interviewing and other than that, they have not asked us to join in with them to do a single thing. Therefore, we have not gotten anything at all that is concrete. This means that there is not yet anything to this...

Whatever activities they have, come on out. If they want to plant trees, bring out some seedlings and they will get planted, for sure. The villagers can get together on whatever day one organizes...The stress just has to be on doing something.

M (Moderator): Right, you want them to participate.

V2: It means that we want to do things together. For example, preserve the forests, and teach the students, or train them in forest-related things. It is not like we just want them to plant trees.

Table 3: Community Needs for Technical Expertise and School Response

	Community information needs	School response
Province A		
Village 1	Leaf accumulation related to fire suppression and mushroom growth	None
Village 2	Tree planting and seedling care	School–community planning, seedling care, RFD training
Village 3	Tree seedling care Establishment of tree nursery	None None
Province B		
Village 4	Tree planting and seedling care Groundcover burning related to leaf accumulation	None None
Village 5	Tree planting and seedling care Groundcover burning	None Contacted RFD
Village 6	Tree planting and seedling care	None

THEME 4: THE NEED FOR TECHNICAL EXPERTISE

Successful implementation of sustainable forestry projects requires technical information about trees and forests. A major premise of the SFEP was that schools can assist communities in gaining access to technical expertise. Teachers can provide technical information directly as individuals or focus their classes on the issue and make it part of the curriculum. Another way schools can play a role is by facilitating links to outside sources of needed expertise. This might be done directly by the teachers, the principal, or by school cooperation with the village headman. Villagers can also make connections directly with such organizations through regular channels such as the contacts village headmen have with district offices. For example, some headmen have monthly meetings at the district office with agency people. Outside sources of expertise include the RFD, the Agriculture Department, faculty at Chiang Mai University, and a variety of NGOs. Table 3 summarizes the technical information needs SFEP communities had and the role the school played in meeting them.

The only case in which the school effectively met community needs for technical information was in Village 2. As with many of the communities, Village 2 had technical assistance issues associated with tree planting. A major school–community project focused on involving students in planting and caring for trees in the school forest. The RFD provided both seedlings and training for villagers on how to plant and care for them, which was in part a response to the principal who had invited them to a meeting at the school that villagers were attending. In addition a local NGO participated in tree planting activities. As a result, students and villagers worked together to take care of seedlings including watering, fertilizing, and cutting away grass.

V1: Before, they just planted seedlings and left them. Nobody looked after the trees. Sometimes the students pulled them up. Now the teachers have a way of getting the students to love the trees by making them each the owner of a tree.

...

V2: Because it is not just students who work on the project. There are adults who are participating, too. All sides help each other.

...

V2: The teachers give suggestions and advice and the Mechai Center (an NGO) coordinates. The RFD gives seedlings and knowledge about forests and how to get them to grow.

In Village 5, the school served as a catalyst for villagers to get together to talk about a project to prevent groundcover burning in the forest. However, the school's attempts to involve the RFD in this project did not go well. The teacher attempted to contact the RFD two days before a village meeting but they were unavailable on

such short notice. He obtained materials on forest fire protection, which he distributed to community members. However, the school seems to have missed from the RFD the opportunity to assist the villagers in developing a program of better tree planting and seedling care. Despite significant community forestry efforts, villagers reported planting around 1,000 trees a year with only ten surviving. Clearly this is an issue where technical assistance was needed.

V1: The villagers have been preserving the forests on their own here in Village 5. The RFD has said that it is very difficult to find villages that work on their own to take care of their own forests.

...

V2: Sometimes if we ask for seedlings at the district office, they are out so they suggest we go elsewhere. It must be the RFD that coordinates that for us. But with the trees we plant, maybe 1000, there will only be about ten that live is all. Maybe it doesn't rain. Maybe animals like cows or buffalo come and destroy them.

In the other four SFEP communities, the schools did not effectively meet villager needs for technical assistance. In Villages 1 and 4, community members were confused about the effects of eliminating forest fires, particularly with respect to the availability of mushrooms and leaf accumulation. Villagers differed in their understanding of the potential consequences of leaf accumulation and the possibilities for managing this. Lack of sustained teacher involvement in the implementation of the project meant they missed the opportunity to participate in the discussion of these questions and therefore, missed the opportunity to provide further technical assistance either themselves or by assisting the community in contacting the RFD.

Village 1

V1: Really if we work together to prevent forest fires there will be negative effects too in that the leaves that fall will collect in a thick cover.

V2: Yeh, I was thinking that if nobody burns for three years or so, then the fourth year there will be a lot of leaves and if there is a fire it will be very bad and will burn for a long time.

V1: The big trees, even this size (shows his arms) could burn as well. If there is a bad fire, it will be terrible and get all the way to the top of the tree.

V2: If there is just a light covering of leaves, whoever wants to burn can do so. There will not be that much damage. So in one way it is better and still bad in one way.

V1: Yeh, part good and part bad.

V2: Did you see it this year? Ho, ho!

V1: There was even more damage than before.

M: So what should be done when part is good and part is bad?
V2: It is very difficult to solve the problem.
V1: In this case, it is better to leave things as they were before.
Several Vs: Yeh, leave it like it has always been. Let them burn some.
V2: Maybe it's better to leave it like it was before and not preserve it.
Vs: Yeah.
V1: Preserving the forests is difficult and there will be even more leaves than before.
Everyone: Yeah, the old way is better than this.

Village 4

V1: There are still forest fires because this is just the beginning so the villagers do not really know what kinds of negative effects there are with the forest from burning.
V2: Burning makes the mushrooms come out.
V3: If there is a fire mushrooms will grow.
M: If nobody burns will mushrooms grow?
V3: Yes.
V1: Now the trees have grown up and their leaves, which fall and accumulate play a part in making the mushrooms grow.

A primary technical issue in Village 3 was tree seedling care. The community would like to start a tree nursery at the school so they are not dependent on the RFD. In addition, villagers want training about forests, different kinds of trees, and how to plant seedlings. The village headman developed and submitted a proposal to the RFD district office and has toured the RFD district tree nursery. There is no evidence that the school participated in or supported the development of this proposal.

V1: Mostly when we plant trees, we just plant them and don't look after them.

In Village 6, while the school is active in caring for the school forest including tree planting, none of its knowledge has been transferred to the villagers. The school's involvement in community tree planting appears to be sharing trees given to the school by the RFD. This is in large part because there was no school–community project in Village 6, which restricted any opportunities for two-way communication between the school and community including the sharing of technical information.

V1: We get trees to plant every year.
V2: But they normally just die.
V3: They die and we plant more.
...

V4: We planted about 15,000 teak trees but if you ask if there are even 100 of them still alive I would not be able to tell you.

Several Vs: Laugh.

...

V5: They (the school) should come and sit down and talk and we can work together to plant trees. Planting trees is something that is concrete and visible.

THEME 5: ECONOMIC ISSUES

In four of the six communities, villagers reflected an understanding that there were economic issues and disparities underlying their forest-related problems. These concerns included acknowledgment of the dependency of some community members on products from the forest such as fuel and mushrooms. A survey done of villagers previously in the SFEP discovered that 74.5 percent of villagers report using forest products. The largest use is gathering food with over 60 percent collecting mushrooms and bamboo shoots. In Village 6 and Village 4, 100 percent of villagers report collecting mushrooms in the forest. Approximately 42 percent gather fuelwood, but this varies widely by village. The focus group data indicate that some villagers know that people burn the forest to create mushroom habitat out of economic necessity and that any solution to forest problems will require the development of economic alternatives.

Village 2

V1: (*Students*) know that people in the village cut trees to sell. They come and ask about how to get people to not cut and sell the wood. We told them that these people have to have other occupations.

Village 5

V1: If people have work to do, they would not light fires. If they had work, there would not be any problems.

...

V1: To solve the problem, the people who do it should get jobs. When people have work to do, they don't have to go out and find food in the forests. When people don't have work, they have to go out to the forests to collect food.

Village 1

V1: If we were really serious about solving this problem of cutting and destroying in the forest I think we would have to have a factory in the village where the villagers could regularly make 60, 80, or 100 baht per day. People would not go into the forests anymore.

Village 4

V1: They have stopped cutting trees because there is other work to do.

There is value in starting with projects that do not require significant villager time and effort to carry out. For example, the opportunity costs for community members in Village 1 created by the daily patrols (eight hours/day) generated considerable discussion during focus group interviews. Household members were either taken away from their work or had to hire a replacement. While the initiative resulted in fewer fires, those that did occur were more damaging, in part because of the inability of villagers to decide how to handle leaf accumulation. Clearing a school forest and plowing fire lanes around it, caring for seedlings, and making signs and putting them up in the woods were all activities with significantly lower opportunity costs that still had a noticeable effect on village behavior, according to focus group participants.

While the time required to implement a large scale project generated discussion about costs, the time villagers devoted to interviews and to meetings where students presented their findings was willingly given. According to villagers, they had a duty to support the school in this way, since it was one of the three major pillars of local society as well as an important way to help the next generation.

4. LESSONS LEARNED

The SFEP project has generated a number of lessons. Themes translate into suggestions for improving collaboration between schools and communities. These lessons provide encouragement for educators, community members, policy-makers, donor organizations, and NGOs seeking to change school–community relations, provide more enriching educational experiences, and generate greater support for community development efforts. At the same time, these lessons show that promoting such change is complex, requires time, and may have unanticipated consequences that affect the achievement of such goals.

The lessons can be grouped under the following general categories:

- Communities
- Schools
- Staff development needs
- Complexity (including indicators of success)

LESSONS ABOUT COMMUNITIES

Lesson 1: Strong latent support exists within communities for projects like the SFEP. Such support can be mobilized for changing the teaching and learning process and developing community development projects.

All communities supported this new form of teaching and learning. This support extended to student projects carried out in collaboration with villagers. In the one case where no project was carried out, villagers called upon the school to become more active in this area. Such strong positive support across villages surprised project teachers, Ministry of Education officials, and MSU faculty. While they had hoped that villagers would respond positively, Thai cultural values suggested the potential for some difficulty. In Thailand, deference toward elders and the belief that “children should be seen and not heard” are deeply ingrained in the notion of “respect,” that binds together different strata of a local village. How would community members react to student interviews? When they made presentations, would villagers attend, and how seriously would they take their findings? When students began projects in collaboration with villagers, how would this “assertiveness” be received? One fallacy of many development projects during the design process is the failure to consider local cultural values. Such values were considered through the combined knowledge of Thai teachers, a number of whom lived in pilot villages, Ministry of Education officials from the district, provincial, and national levels, and MSU faculty with years of research experience in Thailand. Yet, existing values do not

necessarily represent barriers to successful implementation of projects like the SFEP. During the implementation process other values emerge, that allowed strong support.

Instead of seeing student questions, presentations, and activities as inappropriate for their role as children, villagers pointed with pride to the skills and content knowledge their children were displaying. Through their comments, villagers expressed their conviction that this next generation was developing a skill (“dare to speak”) they felt was lacking in their own upbringing and thus had hindered their ability to influence events in their own lifetime. They commented positively on the manners students displayed in asking their questions. They felt students were learning more and could better demonstrate what they learned, compared to their own generation. Not only did students provide villagers information they were unaware of (or chose not to think about), but they also showed that they had important information that could improve student knowledge. The issues the students talked about were of central concern to the villages and provided an opportunity to mobilize support behind improved forest management efforts. Student reports and activities also contributed, through individual villager self-reflection, to possible long term value changes regarding the appropriateness of certain particularly devastating activities, such as illegal logging. As a result of all these activities, schools became more a part of community life.

A concern in the literature is whether community participation is a means or an end. If it is an end, there is a danger that “values” inappropriate to the community may be imposed from the outside. Since such strong positive support for this project had not been anticipated, it suggests that projects such as the SFEP, which are conceived as both a means and an end (developing new links between schools and communities through integrating the educational system into community efforts for sustainable forestry) have the potential for mobilizing latent values not immediately discernible. This may be especially true when culturally congruent ways of eliciting information are used.

Lesson 2: Villagers have much to contribute to the education of their youth.

Throughout the world indigenous knowledge is viewed as having little to do with knowledge produced in school. Bude (1989) has documented that community members rarely if ever actually teach children, and that teachers and schools resist the introduction of this practice. However, the SFEP helped change community perceptions of their role in education.

In Thailand status differences between the school and community historically have marginalized villager involvement. Villagers donate time and money for school upkeep and construction projects and attend periodic meetings where they are informed about programs and policies and ask questions. They are encouraged to

support school sport days and other ceremonial events. One of the lessons learned in the SFEP, however, is that if given the chance to become more involved in the education of their youth, villagers will come to see that the knowledge they have about village history, social relations, and economic structure is relevant to what students could learn in school. Their understanding of the events that created a range of environmental problems can be taken by students and woven into a coherent case study that makes sense to villagers. Villager knowledge of local forests and herbs can become the source for much student learning in science. The curriculum can be linked to daily life (see also Bude 1989; Hooper 1980; Schiefelbein 1992).

Teachers, by using this approach to learning, were able to use a much wider array of resources to improve student learning. As teachers participated, their respect for indigenous knowledge increased and they supported an expanded role for the community in the heart of the instructional process: the curriculum and its implementation. Similarly, teachers' attitudes changed toward involvement with community projects. At the beginning of the project, they saw their role as only teaching content. By the end of the pilot phase, most teachers in the project saw the need for school involvement in community development projects as appropriate and natural. They were more comfortable with the idea that the school was a part of the community and, therefore, should contribute to solving local problems.

Lesson 3: As communities become involved with schools, relations improve and community expectations for schools increase.

The traditional relationship between schools and communities in Thailand is one in which community members are reluctant to assert influence over classroom or curricular matters. Similarly teachers seldom venture out to communities to take advantage of the many resources available for improving instruction. The notion that the school should contribute to local community development remains undefined (the "three pillars of society" notion) and untapped. Across villages, as teachers learned how key concepts in the curriculum could be connected to local field studies, helped students learn to access the information available in their local community, and worked with community committees to define and implement projects, relations between the schools and communities changed. Education became less of a separate institution and more integrated with the community (Shaeffer 1991). As contacts grew between students and villagers, the "generation gap" declined; students came to see the wisdom villagers possessed, and villagers came to see students as interested in what they had to say and polite in how they conducted themselves. The degree of community support for this initiative, however, was directly affected by whether the school moved beyond interviews to some sort of project. Where schools worked with communities to plan and carry out projects (and teachers remained actively involved throughout the project), community support was highest. Where no projects were attempted, support for the approach was tempered by villager confusion over goals and frustration that the school did not take the next step. The lesson for those

interested in changing school–community relations is that improved relations will result from using local resources in instruction, but such support can be significantly increased if the school also contributes to the community’s efforts to address its own problems. A second lesson is that as community members become more involved with schools they expect to have a greater voice in what the school does. This lesson should not come as a surprise, as the community participation literature suggests that communities, once consulted, insist on expressing their views (Nagel 1992).

Villagers in Village 6 expressed frustration with the inability of teachers to move beyond student presentations to actually doing a project. In the other five communities, villager enthusiasm for projects rekindled hope that major improvements might result from improved forest management practices and that this current generation of students might someday assume leadership roles in the village and continue the work that had begun. As a result, villagers now expected the school to continue projects underway and to start other ones, as appropriate. In Village 1, villagers took another step. As the village leaders discussed the possibility of hiring local people to monitor the forest the next dry season instead of relying on community voluntary labor, the discussion turned to what teachers might be expected to contribute. Their comments capture the changed nature of community expectations for the school.

V1: Next year the first thing we should do is ask for 100 or 50 baht from each teacher. The good effects of this project are accumulating with the teachers already. We should ask them first and then have a meeting with the villagers another time...

M: So do you all think it is the duty of the teachers to spend money on this project or not?

V1: Yeah, it’s part of their duty...

V2: Mostly because these teachers do not come and help look after their own project. All they have is their words, while it is the villagers who actually do the work. The teachers just talk...

V1: If the teachers refuse to cooperate, we in this group will have to go and point out to them that whenever they have wanted to get things from the villagers, which means us, they have just come out and we have provided everything...

LESSONS ABOUT SCHOOLS

Lesson 4: Students represent a powerful force for change within villages.

As community members answered student questions about forest-related problems, they were forced to confront the disparity between what they would like to see happen (forest regeneration and preservation) and what was happening. In all

villages, community members reported feeling a sense of embarrassment, bordering on shame, and, for a few, even concern that they would have to answer such questions. As villagers learned the extent of the problems from student reports, conditions for supporting some kind of intervention were created.

It seemed to make an important difference whether these problems were raised from inside the community, by community members (students), or from outside, by some governmental organization. In seizing the political moment to encourage villager support for reducing forest groundcover burning, the headman in Village 4, for example, noted in his remarks after the students' presentation, that while the RFD and other organizations had come to talk about this problem, this was the first time "our children and grandchildren have raised the issue and perhaps it is time we did something about it." That forest management issues were already on the agenda of every village also served to increase the legitimacy of student inquiry into this topic.

That villagers would be especially willing to listen to their own, and their neighbors' children, reflects two beliefs expressed by community members in the focus groups. The first is that while villagers felt they deserved government support and assistance to help solve a range of problems, they were skeptical that such assistance would actually be forthcoming. In all villages, community members expressed the feeling that ultimately they were on their own: if change were to come, it would come from their own efforts rather than from any outside help. The villagers' second belief is that the village leadership, temple, and school—the three pillars of the village—need to work together if change is to occur. That the school would now want to actively support community efforts to improve forest and other environmental conditions fell on very receptive ears.

Schools have a history in Thailand, and elsewhere, of using students to disseminate information to adults about one policy issue or another. In the United States during the first decades of this century, teachers taught good hygiene, nutrition, and sanitation in the hopes that students would share this new knowledge with their parents, thereby improving the quality of life at home. In some cases, school social workers followed up with home visits to talk further with parents about nutrition or to take the mother shopping. The general model, however, was a passive approach in which the school taught and the burden for dissemination rested with individual students. The results proved disappointing (Lazerson 1971; see Tyack and Cuban 1995 for a general assessment of educational reforms in the United States). The same is true for many environmental education efforts in the United States. It is a commonly held tenet that if the children are taught about pollution, recycling, car pooling, etc. that they will teach their parents. Considerable environmental education resources are channeled to these efforts. However, this belief is not supported by systematic research.

The approach used in this project differs in several important ways. The school supported student data collection, presentation, and project intervention. Students were seen as a part of the school's efforts to change teaching and learning, not as individuals, when they conducted interviews or made presentations. The principal and teachers visited the community before students ever set out from school to explain the purposes of the project. Principals and teachers worked with village leaders before student interviews to arrange student presentations and to hold discussions with them on what to do next. Teachers learned new content so they could provide ideas and a framework for the students and to help them develop questions to ask villagers. Teachers made appointments with villagers. Students visited the community in teams supervised by the teachers. The school invited community members to presentations and provided refreshments. This organizational support served to increase student credibility, and contributed to creating the conditions for a collaborative project.

Lesson 5: Teacher change occurs incrementally and is directly related to student response and the support teachers receive.

About 70 percent of teachers participating in the SFEP (16 of 23) made substantial changes in their teaching. Resistance was greatest among lower secondary teachers (6 of 8). The kinds of changes teachers active in the project made included: involving students more in the learning process, incorporating field work into classroom learning, integrating science and social studies, using a wide array of local materials and resources in teaching, including villager knowledge and experiences, and modifying assessment strategies (Wheeler, et al., 1997b). Moreover, teachers who changed their practices also displayed more positive attitudes toward involvement with community projects.

The strongest determinant of teacher change was improved student engagement, according to evaluation findings. As students experienced content connected to their own lives, they participated more and demonstrated skills and competencies teachers thought were only possible at more advanced levels of learning. As this effect began during the first term, teachers felt the approach had merit. Taken together with new forms of staff development and ongoing support, teachers were willing to make significant changes in their teaching over a five-semester time period. As the project matured, assistance for promotions and the opportunity to present what they were doing to Ministry of Education officials became increasingly important for a number of teachers.

As teachers moved increasingly toward engagement in community projects, their anxiety levels again increased. This reflected their need for further content knowledge in forestry and the complexities of working with villagers. Difficulties in getting such training in a timely fashion and at a deep enough level hindered progress. Teachers who pursued community projects, however, found they did not

have difficulty relating such activities back to the curriculum and the content they were expected to teach.

For others interested in projects with similar goals, potential student engagement represents a valuable resource to promote change. Coupled with more participatory forms of staff development and ongoing assistance from supervisors and the chance to share new understandings and problems with other teachers, the preconditions for significant change may also exist in primary schools in other countries.

Lesson 6: There is a need for ongoing teacher involvement in community projects.

Evaluation of progress toward solving a locally identified problem represents the final step in improving the teaching and learning process. Teachers need to remain actively involved during the implementation phase if students are to learn how to implement this important component of the model.

To address forest-related problems villagers also require access to additional sources of technical information. In some cases, where projects such tree planting already exist, the need for information on care of seedlings and proper planting techniques are obvious. Where new projects are started, the needs will emerge both at the beginning of the project and as the project develops. Simply stimulating a community to initiate a project will not necessarily lead to a successful resolution. New technical information needs will likely emerge that will also have to be met. This is illustrated in Village 1 where the introduction of a project to control forest burning resulted in a new set of questions about leaf accumulation and mushroom availability. Meeting these needs for technical assistance requires ongoing, active involvement of teachers.

Unless teachers become personally engaged in a project to address a local community problem, they are unlikely to uncover the technical needs of villagers. Simply studying local history or a specific issue takes information from the community to improve student learning, but does not sensitize teachers to villager needs for new information. Village 6 is an excellent example of this point (no project, no idea). In contrast, in Village 2, teachers remained active in all phases of the project. As a result, the principal learned of the community's interest in obtaining training on seedling selection and planting, and he arranged for RFD assistance. This resulted in RFD training of community members and teachers in these areas, and contributed to the success of this school–community project. Teachers need to know that meeting these needs is one of the conditions for implementing a sustainable project.

However, there is value in starting with issues for which the technical information needs are not great such as tree planting. This can create momentum for both the school and community to address more complex issues that may require more

outside assistance. In Village 2, the active integration of teachers into the existing forest organizations in the community and the school's effort to focus on issues the community was already involved in that were relatively small scale allowed the school to deliver technical assistance to the community.

Lesson 7: Principal leadership is important.

Principals in the project varied in the support and assistance they gave teachers. All participated in training sessions along with teachers and met with village leaders and helped teachers explain the purposes of the project. Most attended student presentations to groups of villagers. Several principals attended meetings where teachers shared what they were learning with other teachers and district supervisors. After that support for the project varied considerably. In only two schools did principals provide ongoing active support for both the teaching and learning component of the project and the community development component. In Village 2, as noted earlier, the principal made several decisions by himself, which affected the project. In general, however, his energetic support of the two participating teachers, his efforts to explain the project to community members, and his willingness to contact the RFD facilitated the integration of the teachers into various village committees and the implementation of the several projects undertaken. In Village 4 the principal provided support for the fifth grade teacher and worked closely with the village headman and temple abbot to explain the project and mobilize community support for various student activities. His desire to influence what the sixth grade teacher did, however, had a negative effect on this teacher's participation. In one term, this teacher was passed over for a merit increase, and his frustration led to his reduced involvement the next term. The teacher also differed with the principal on how to proceed with various community projects, and this also affected his willingness to follow through on some aspects of their project to reduce forest fire groundcover burning. In the other four schools, principals did not provide active support for teachers, except in Village 1, where prior to the village meeting where students presented the results of their survey and findings regarding forest groundcover burning, the principal worked with the village headman to develop a united front for proposing a patrol system. After that, his involvement reverted to what was typical for principals in all other schools: allowing teachers to set their own levels of engagement and to negotiate specific activities with the community by themselves.

While principals were involved in all training sessions and developed plans for supporting the different components of the project, these plans were seldom implemented. Since active principal leadership can affect teacher morale, opportunities to meet with other teachers, and access to outside sources of technical expertise, projects like the SFEP need to develop effective strategies to increase principal engagement and commitment. Neutral support is simply insufficient.

For those who seek to implement projects of this kind, more attention needs to be given to incentives, constraints, and training needs for principals to play the active, supportive role needed for teacher change to occur.

LESSONS ABOUT STAFF DEVELOPMENT, TRAINING, AND EXTERNAL SUPPORT

Lesson 8: Ongoing staff development for teachers in technical content, e.g., forestry issues, is important.

Studies in the effective implementation of projects around the world clearly show that the transfer of technical expertise to project participants is a critical element for project success. In the SFEP, this transfer was to be made to the teachers, who would then serve as “windows” to this expertise for their students and respective communities. Teachers need to have a certain level of technical expertise if they are to identify existing forest issues and activities in a community and assist communities to gain access to technical information. While the Ministry of Education provided valuable assistance to teachers in new teaching methods, a weakness in the teacher training component of the SFEP was the failure on the part of the Ministry of Education to provide effective teacher training on forestry issues in an ongoing and sustained way. This design problem raises questions regarding the need for teachers to have a certain level of technical expertise in order to be able to observe community issues.

There were several negative effects of the Ministry of Education’s weak support of staff development in the content area of forestry. While primary school teachers in Thailand have university degrees, their knowledge of science is general and lacks depth especially as it relates to applications such as forestry issues. Without additional training, teachers did not have sufficient content knowledge to be of much assistance to villagers as they grappled with various technical questions. This also led to some erroneous science content being taught, recorded in classroom observations by project fieldworkers. In two villages, it also contributed to some student moralizing to adults about the need to “save all trees” that is not the intent of social forestry initiatives. This makes the issue of adequate training in forestry content for teachers all the more important. The major concerns about environmental education in the United States focus on the quality of materials and the scientific knowledge base of teachers. If these are not strong, the conditions for “good science and balanced science [are] not there and teachers move on to the behavior modification, lifestyle changes, and politics without giving the students the benefit of good, balanced, objective, fair, scientific treatment of an issue,” according to a 1997 broadcast on National Public Radio. Lack of adequate content knowledge about

forestry issues also probably contributed to the reticence of some teachers to engage in projects, to address some issues, or to move the projects along at a faster rate.

A second component of staff development could also have been delivered more effectively. A handbook/guide developed for this project included valuable information on teaching methods and forestry concepts. While this was distributed and used during the initial training session, the forestry concepts were not referred to in subsequent sessions and the handbook/guide was only revised during the final term. While the Ministry of Education did provide teachers with useful videotapes on forestry issues during the fourth and fifth terms, the content in the handbook guide, if reviewed and revised earlier, could have provided valuable supplementary information directly to teachers.

Even if teachers possessed adequate knowledge, under what conditions would they be able to use it? As indicated earlier, remaining actively involved during the implementation phase provided a key opportunity to learn of community needs and to provide advice immediately. It must be acknowledged, however, that the workload associated with primary school teaching represents a potential structural constraint, both to ongoing participation and to the time teachers can devote to finding requisite information and providing advice on particular technical issues. School begins at 8:30 and ends at 4:30. Teachers are responsible for a grade level the entire eight-hour day (although some teachers specialize in one or more subjects and trade with teachers at the next lower or higher grade level to ensure that all subjects are covered). They often have responsibilities for making lunch (sometimes shared with a local housewife organization). They have certain administrative responsibilities, and the more proficient teachers may be tapped for school cluster responsibilities.

However, it is clear that teachers had varied involvement with projects during the implementation phase and in the amount and kind of advice they provided. Additional training provided in a timely manner might well have enabled more teachers to carry out this important function more effectively. This is particularly the case for the issue of seedling care, which could have provided tangible results in an area where activity across most villages proved particularly ineffective.

Lesson 9: There is a need to facilitate (or expedite) links to outside sources of technical expertise for teachers and villagers.

Considerable variation characterized teacher efforts to link their communities with outside technical assistance, particularly the RFD. It is important that such relationships develop so officials understand specific villager needs. The school can and should play a significant role in establishing such relationships. However, staff development efforts in how to make and nurture such contacts is important and proved inadequate during the pilot phase of the project. Moreover, certain Thai cultural features compound the difficulty of establishing these relationships.

Community members had some contact with the RFD independently of the SFEP. Experiences of community members with these contacts were mixed. In Villages 4 and 2, for example, villagers spoke of the ongoing and long term interactions they had with tree planting and fire fighting. Villagers in other communities, such as Village 1, complained about their interactions with the RFD. While a group of villagers went through RFD-sponsored forest fire training, they were critical of the chalk and talk format, the demands the RFD wanted to impose after the training, and the lack of followup assistance. In Village 3, villagers reported that when RFD officials visited, it was generally to check and see if people were cutting trees or to remind villagers not to cut. Meanwhile, according to villagers, businessmen continued to cut trees, but, when caught by the RFD, were able to avoid large fines through bribery.

There are many possible reasons for the lack of teacher success in contacting the RFD and for the community's perception of RFD unresponsiveness. The RFD, like government agencies everywhere, has its own priorities and programs and is understaffed. The understaffing is the result of the Department's efforts to address the many serious forestry problems facing Thailand and is an important reason for the SFEP's emphasis on the school as a source of technical assistance. For example, when villagers at the project sites most needed advice on issues related to forest groundcover burning, the RFD was busy coordinating large fire prevention activities across forested areas in Provinces A and B and could not respond on short notice to teacher requests. However, in some cases it is difficult to assess whether RFD would have responded or not, as teachers or principals simply did not contact them. Secondly, villager perceptions of unresponsiveness may also reflect a reaction to the way in which the RFD often sought to involve villagers in a project. These included directives to plant seedlings, to participate in RFD-created committees to combat forest fires, and not to cut wood. This approach to involving community members in projects may account in part for the general lack of villager followup care for seedlings and some of their critical remarks regarding training in fighting forest fires. Besides the RFD, several communities expressed criticisms of agriculture and community development officials as well.

Key to making a project like the SFEP a success is the need for villagers and teachers to become more assertive in asking for training and assistance with specific issues. This is difficult to accomplish in the Thai context. First of all, in the hierarchically structured Thai society, there is a definite protocol based on status that comes into play when contacting another person or organization. District RFD officials are at a higher administrative level. In all villages and schools, the perception was that only the village headman or the principal had sufficient status to contact these officials. In two schools, individual teachers wanted to contact officials on their own, and were encouraged by project officials to do so, but they either failed to follow through or failed to make effective contact. There is a second cultural

barrier. In Thailand the notion of *kreng jai* is a deeply held value. According to Komin (1990), “Its closest meaning is to be considerate, to feel reluctant to impose upon another person, to take another person’s feelings (and “ego”) into account, or to take every measure not to cause discomfort or inconvenience for another person” (p. 164). In Thai culture, the constraints of *kreng jai* often lead to no contact at all.

Yet productive relations were developed with the RFD, showing that these barriers are more permeable than they might seem. Both the involvement of the principal and the village headman are important. Village 2 illustrates this point. Through the principal’s energetic efforts, e.g., a personal visit to the RFD’s district office, explanations of the project, and discussions of specific training needs, district RFD officials responded with assistance that met the needs of teachers and villagers with their collaborative tree planting project in the school forest. Village headmen often have regular meetings at the district level with various administrative agencies. Village 4’s headman indicated that he would be willing to contact the RFD when the school deemed this to be appropriate.

But even teachers can establish meaningful relations with the RFD. The following example comes from the data on secondary school participation. One eighth grade social studies teacher who was among the most active in the project learned of an RFD program from the district office to train villagers in different forestry initiatives. He joined the program and, as a result, gained valuable technical knowledge and has since developed a network of contacts with many local villages where his students pursue small scale social forestry and other environmental projects in collaboration with community members. Because of his contacts with the RFD, he is able to serve as a link between villager needs and RFD expertise.

Two lessons emerge from these findings. First there is a need to build skills among villagers, teachers, and principals in how to appropriately contact organizations that can provide needed technical expertise and what kinds of questions to ask. Another lesson learned from the SFEP is the need to involve officials from agencies possessing relevant technical expertise (forestry in this case) in discussions during the development phase of the project on strategies for accessing their technical knowledge. (This lesson is a correlate of both lessons six and ten). The transfer of technical expertise to teachers should involve how to gain access to outside agencies. Furthermore, all project participants, including outside sources of technical expertise, should be included in early project discussions.

Lesson 10: Promoting changes in school–community relations requires that villagers be trained along with teachers and other educators.

As noted earlier, the original project design proposed that a select group of villagers be included in all training sessions with teachers, principals, and supervisors. Before the first training session, this was modified to exclude villagers because

of additional cost, although funds were available from outside organizations supporting the project. A second plausible reason for this decision was that since the Ministry of Education was feeling its way with a project such as this, the inevitable confusion and discussion of what was expected and how expectations might be realized might stir up anxieties among village leaders to the point that support for the project might ebb. A third likely reason was the view that since this was an education project, training should focus on educators.

The effect of this decision had several consequences. The first was that all communication about the project flowed from the school to the community. Teachers and administrators were the ones to explain the project to village leaders who in turn explained it to villagers. While over time villager understanding of the project steadily increased as interviews, presentations and projects were carried out, such understanding might have occurred more rapidly had villagers been involved in the project from its inception. Secondly, the goals of the project remained and continue to remain in the hands of teachers and administrators. Had villagers participated in early training sessions, they would have had the opportunity to shape project direction. Given knowledge of the overall project independent of what teachers and principals provided and greater initial ownership, they might have exerted pressure to move sooner toward joint school–community projects. For example, they might have encouraged a school such as Village 6 to at least pursue a project. They might have provided assistance to teachers at Village 5 and Village 4 to do more than just work with villagers to put up signs. They might have expected teachers at Village 1 to continue to participate in discussions surrounding the patrol system and encouraged them to help find technical advice to answer the questions, which arose during project implementation. Finally, by not including villagers in early training sessions, teachers were denied the opportunity to develop earlier relationships with village members, to learn about past village history, efforts to preserve forests, and the functions of various village committees concerned with forest matters. Since it is difficult to find the time to learn about such issues during the daily demands of teaching and subsistence farming, it may not be surprising that schools in Province B developed virtually no ongoing involvement with existing village forest committees.

If the project could have benefitted from including villagers in training sessions, it is not clear when such involvement might have been most productive. Because villagers were not included in any training, it is also not clear whether sessions with teachers, separate sessions, or some combination might have most effective. Early involvement (during the planning phase of the project) with the Royal Forestry and Community Development Departments might also have led to a coordinated training program for both villagers and teachers. For those interested in projects such as this, the issue, however, must be confronted. In the expansion phase of the project, village headmen now participate with teachers and principals from schools joining the project. Village headmen from the pilot schools participate in these sessions. Coordi-

nation with Forestry officials has also improved. These efforts may yield lessons in the future.

LESSONS ABOUT COMPLEXITY, SUCCESS, AND VARIATION

Lesson 11: Projects developed by schools and communities may have different overall goals than pilot projects because the project implementation process cannot be controlled.

A major goal of the SFEP was the development of joint school–community projects focused on sustainable forest management activities. The project had some ideas of what these projects might look like. These ideas included such things as agroforestry, community woodlots, and community nursery projects and were based on baseline data collected from communities identified as having potential for forestry projects. However, the projects that developed were often quite different from project expectations and varied from community to community.

Except for Village 2, care and attention to seedlings were never seriously addressed. Tree planting activities had been underway in all villages for a number of years and to varying degrees school children had participated in these activities. No serious attention, however, had been given to the care of seedlings, which resulted in very small survival rates. Recent developments in Village 3, however, suggest that greater attention may be given to this area, with the village requesting the school to establish a tree nursery and one of the joint school–community projects being the establishment of a school forest. Regarding school forests, three of the six have activities involving such entities, but only one, Village 2, uses it for learning purposes. In Province B, where villages have been more aggressively trying to reduce forest depletion, virtually no integration occurred between schools in Villages 4, 5, and 6 and the various forest committees already in existence (although in Village 4 the village headman reported that the forest committee had taken students to the woods on several occasions for instruction). In Province A, however, new committees were established with the specific mission to attend more closely to forest resource management issues. Heavy demands for wood in the reserve forests in several villages and the opportunity to address this issue through community woodlots or other small scale social forestry projects were not considered. Village 5 was one exception; although the issue was raised, no followup came from the school. Possible forestry projects to improve watershed management problems were not discussed.

Such variation within projects and from initial SFEP expectations should be expected for several reasons. The first is the complexity of intervening in an ongoing system of relations within a community. While focus group data show community

support for the new approach to teaching and learning, the level of assistance provided by community leaders depends on factors such as opportunity costs and the fit between project requirements and local decision-making culture. Teachers in several schools perceive that village political factionalism or cohesion can also be factors that affect community support.

Villagers across communities willingly donated time to answer student questions and attend presentations. If this helped teachers improve student learning, which they came to believe, then they were willing to make the needed sacrifice of time. As indicated earlier, many villagers also were proud to share their knowledge with students. But in all villages, people raised the issue of the time—and sometimes money—they gave up to participate in the SFEP.

The case of Village 1 provides an example of community response to the issue of costs. It is not possible to know what villager reaction might have been had the fire not occurred after the patrols had ended. It is clear, however, that many villagers perceived the time they donated to patrols as too costly compared to the benefits they received. Even the village leadership recognized these costs, since they planned to propose a system for paying a group of villagers to monitor the forests for the next year.

In contrast, putting up signs, tending seedlings, and clearing grass from a school forest, for example, do not require the same time commitment from villagers. At the same time, clear outcomes are visible. It may be that projects like these are especially well suited to show both teachers and villagers the benefits of joint collaboration within a short time and at low cost.

Projects also vary due to the unique social structure and decision-making culture of each community. Projects in all villages were welcomed since they affirmed Thai cultural value of the “three pillars” working together to promote village welfare. This belief, if held in other countries, represents a powerful latent sense of support for interventions such as these.

Similarly, the very limited scale of projects in four communities fit the Thai cultural value of avoiding conflict. Putting up signs was a way to reclaim public land for forest preservation. Those who saw such signs were made aware of a village’s concern about forest groundcover burning and its interest in protecting the trees. Indirectly they could assume that a village system of fines might well apply to them, should they start a fire and be caught. But there was no direct confrontation with an individual or group of individuals who might start a fire. Grass-clearing activities and seedling care are activities, which do not threaten specific interests; all that is required is the donation of individual labor.

In contrast, as the project at Village 1 unfolded, conflicting views emerged over a range of issues. As indicated above, these issues went to the core of whether forest resources could be managed, and, if so, how. While village leaders claimed they planned to continue the program during the next year, how much controversy can a project endure before its political costs are seen as too much to pay by village elites?

The implication of such complexity for those interested in promoting such changes elsewhere is to recognize that while they can influence many factors, they cannot control the process of implementation. Variation is to be expected, even encouraged, while the need for ongoing engagement remains constant. Such complexity and the possibilities for starts, stops, and new initiatives need to be anticipated when considering promoting changes of the kind described in this paper. This factor should also be kept in mind when evaluating the success or failure of an initiative.

Lesson 12: Definitions of success at the end of the project may vary from original criteria.

Evaluating whether projects are “successful” poses an interesting set of questions. One might suppose for the SFEP that if school–community projects about sustainable forestry were developed and implemented that the overall project was successful. But there is so much variation in the projects that measurement of success becomes less than straightforward.

Two lessons about “success” can be learned from the experience of the SFEP. The first deals with the time frame in which success is measured. In evaluation research, it is a commonly accepted view that projects need time to demonstrate effects and that early evaluation—often done to satisfy policymakers eager for results—is unlikely to show effects of marked change and may even prove counterproductive to further progress. Just as there is a learning curve for teachers as they try new methods, develop confidence, and proceed to new challenges, there is a learning curve for communities. As two organizational entities, the school and the community, interact, false starts, mixed signals, and missed opportunities are the rule rather than the exception as each side learns how to interact with the other. Implementation studies in the United States show clearly that “mutual adaptation” where those responsible for implementation modify and adapt requirements to fit specific circumstances and unanticipated consequences have the greatest chance for success (McLaughlin 1995). Given the short time in which schools actually began to work with communities on a project (two terms out of five), school–community activities can be seen either as limited progress or important first steps. These activities included: making signs, creating new school–community committees to address forestry issues, designating part of a forest as a school forest and building fire lanes to protect it, working with villagers to care for seedlings, and developing a community-wide patrol system to reduce forest groundcover burning.

Another lesson about measuring success is related to the scale or size of the projects developed and the question of whether larger projects are more successful. One way of looking at projects is by their relative scale and the kind of issues that were discussed. By this standard, the project at Village 1 rates very high. The village leadership strongly supported the school's findings that indicated a forest groundcover burning project would help to preserve the forests. The entire village was mobilized to participate in daily patrols. The school's role as a catalyst for helping the community to address a major problem was an important component of this case.

Moreover, as the project unfolded, a number of key issues emerged that generated serious discussion among villagers and within the village political elite, including what to do about leaf accumulation, concern over loss of mushrooms, and the opportunity costs for patrolling the forest. It could be argued that these are exactly the kinds of issues that need to be raised if progress is to be made on the basic causes of forest destruction. But teachers were not a part of such discussions. If the objective was sustainable joint school–community projects, how successful was the effort in Village 1?

In both Villages 2 and 3, smaller scale projects were implemented. In contrast to the perspective above, it could be argued that the most important outcome was probably the integration of teachers into village committee decision-making organizations set up to work on forestry management issues. Such integration provides the opportunity for teachers to have ongoing involvement with issues as they arise and to influence the kinds of projects that are developed in the future.

One problem with this kind of analysis is that projects that do not require much time or do not create much controversy, while worthwhile and perhaps good initial starting points, may not affect the causes of problems regarding forest regeneration and preservation. Moreover, once a pattern has been established regarding what kinds of projects are "appropriate," it may then be difficult to move into projects that raise more basic issues and have the potential for generating greater controversy. Whether such will be the case in the four villages where small scale projects were carried out cannot be determined, owing to the limited time that has elapsed since implementation began.

5. CAVEATS AND FURTHER QUESTIONS

Villager perceptions of what they want their children to know and be able to do reflect their perceptions of what the educational system is supposed to do. These perceptions are shaped by policymakers from Bangkok and result from a history of limited school engagement in community life. Tight curriculum control from the central level, teachers who often do not live in the community, and a focus on testing factual recall have created status inequalities and differing expectations on both sides as to what schooling is all about.

This project shows that other community values can be mobilized through school involvement with communities. These include: support for a form of learning that uses local resources and knowledge, a belief among villagers that they have more to contribute to education than just donating funds and labor, and encouragement for the school to become a more active “pillar” in the community’s efforts to address serious problems that affect its very future.

The conditions under which it becomes possible to mobilize these latent values remain an open question. In Thailand, in contrast to many other third world countries, primary education is universal. Moreover, as lower secondary opportunities have expanded, the testing system’s role of controlling the numbers of students who continue has become less meaningful. The growth of “expanded” primary schools in rural areas where grades 7–9 have progressively been added, means that for many Thai youth, it is routine to continue beyond grade 6. Since there are no fees, the costs of attending have been significantly reduced. Since additional classroom space is located in or very close to villages, concerns about safety and transportation have been met. For those with adequate means, especially families that live in or near district, provincial, or urban centers, tests still play a role in selection to secondary school, although spaces do exist for those who fail to enter the more prestigious schools. District tests and school cluster tests are used more as indicators of student progress and school performance than as strategies for promoting repetition. These developments have led to increased flexibility for teachers at the primary level to experiment with teaching methods, such as those used in this project, without fear of endangering the chances of their students continuing. While students in project schools generally did as well or better on district and cluster tests, project teachers, by the fifth term, were not as concerned about student performance on these tests. They felt that students’ improvement in understanding concepts and their improve-

ment along a range of process skills that were important for later learning and life were far more significant than what current tests had the capacity to evaluate.

The important point is that the current level of development of the Thai primary system has allowed teachers not only to think this way but also to act, at least at this level of education. While teachers in other countries may also see the benefits of such an approach to education, the constraints put on them by the testing system may limit their ability to carry out projects like the SFEP. Evidence that such might be the case comes from the experience of lower secondary teachers participating in this project. They teach in two secondary schools that are not a part of the “expanded” school initiative. Science teachers at the seventh and eighth grade levels evidenced low commitment and support for the SFEP in part because they felt students had to learn the contents of their texts—exactly as presented—if they were to do well on tests at the end of the ninth grade that determine whether they can proceed to upper secondary school. Such resistance, however, was not present in the activities of two eighth grade social studies teachers who carried out numerous projects in nearby communities and whose students also had to take the entrance examinations to upper secondary. The fact remains, however, that the science teachers perceived the test to be a major constraint to active participation in the SFEP. An almost total lack of support for the project from the central office of the Department of General Education also probably contributed to science teacher resistance, since there was no indication that they had to take the project seriously. Left on their own, with only intermittent support from the provincial office, only two of four social studies teachers responded with changes in their practice (Wheeler et al. 1997b). Some resistance probably stemmed from their own training, which did not include field studies, but just classroom instruction. Moreover, several science teachers felt the project was geared toward social studies. (Here the training provided through the project might have helped to correct this misimpression.)

There are two lessons, intertwined with each other. First, for projects like this, the testing system can represent a potential barrier, and this issue needs to be addressed during the design process. Unless Ministry of Education officials in other countries are willing to examine the testing system at the same time that they implement a project of this kind, its benefits may be limited to just studying local history and customs. Secondly, there is a need for ongoing administrative support to show teachers how they might adapt their teaching and still meet various testing requirements. If the second condition is met, the first is more likely to occur.

Questions remain about the potential for the Ministry of Education to support or resist projects like the SFEP. In terms of support, the SFEP represents one of the first efforts to implement a staff development program based on a “teacher as learner” model. In Thailand a typical staff development program consists of a short training session in which teachers listen to a new method of teaching, discuss its implica-

tions, and develop plans to implement it. Little or no followup is provided. The result is predictable: little substantive change occurs. In the SFEP, however, Ministry of Education project officials, led by staff from the Office of the National Primary Education Commission, succeeded in implementing a form of staff development enabling teachers to experiment with new methods that students would later experience. Staff development sessions on lessons learned and new teaching strategies were held regularly at the end of each term. These sessions also helped teachers to see curriculum development as a process, rather than simply material from Bangkok to be taught, and that ultimately it is the teacher who must decide both content emphasis and pedagogical approach.

Besides providing resources for these sessions, the Ministry of Education allocated staff time for supervisors to provide ongoing assistance to teachers in their schools. Besides observing classrooms and visits to the field, supervisors arranged sessions with teachers to discuss the curriculum. This enabled teachers to learn how to better plan lessons to cover the content and to see how field visits could generate new understanding of key concepts. Such support, according to teachers, was important in helping them change their practice.

As indicated earlier, however, there were several areas of training that needed greater attention, and these raise lingering questions about how far Ministry of Education support for projects like this will go. While there are currently several other projects like the SFEP underway in Thailand, the SFEP was the first to move beyond using the community as a learning resource and to involve the school in community development activities. In contrast to the Department of General Education (secondary) and, to a lesser extent, the Department of Curriculum and Instruction Development, the Ministry of Education's support through the Office of the National Primary Education Commission (ONPEC) has consistently been strong, especially for improving the teaching and learning process. Support for involving the school in community development projects remains more problematic, because school involvement in change-oriented projects raises profound questions about the school's role. Can involvement in community development projects be effectively linked to curricular concepts? Or do they represent a diversion from what students need to know and be able to do to proceed through the educational system? Where should the school draw the line between providing technical expertise and becoming one of many actors involved in local change activities? Can such a line be drawn? Given the daily workload of primary school teachers, how much time can they be expected to give to developing expertise in forestry, transmitting such knowledge to villagers, developing relations with outside organizations that can provide such assistance, or being actively involved in a community project? What responsibility do other organizations (RFD, Community Development Department, Agriculture Department) have for providing more appropriate assistance directly to communities and linking with schools, thus lessening the potential burden for teachers?

To date, projects underway have been either too episodic or too short in duration to generate any firm data on these important questions. Perhaps the lesson goes back to the notion of incrementalism. For those who seek to implement similar projects in other countries, perhaps small scale incremental changes at the grassroots level may provide the best chance to demonstrate to participants at all levels possible ways for reconciling their different views and meeting their legitimate concerns.

Change-oriented projects are fragile by nature, at least initially. The departure or reassignment of an active teacher or principal, the emergence (or reemergence) of political strife within a community, changes in Ministry of Education directors-general or key project staff in Bangkok, provincial or district offices, new policy directions from the Ministry of Education in Bangkok—any one or more can weaken or reinvigorate efforts to change the teaching and learning process or to implement a collaborative project with a community. Sustained support coupled with incremental change provides the opportunity to begin the process of institutionalization.

Finally, in terms of expansion, three strategies at the primary level are being used, reflecting a compromise between the Ministry of Education and Michigan State University. MSU project staff believed in the need for gradual expansion, but the Ministry of Education had the political necessity to provide information rapidly to a larger set of schools based on positive evaluation results. In nine provinces, a small set of sixty-four schools new to the project are receiving intensive training and assistance from staff at existing schools. Teachers, principals, supervisors, and village headmen new to the project visit project schools, which are serving now as demonstration schools. Project teachers, principals, supervisors, and village headmen with Ministry of Education support use participatory staff development sessions and encourage followup support similar to what they received. New participants have the chance to “shadow” project teachers as they carry out components of the project and to try out elements under their supervision. Another 156 schools will join this intensive program next year. A second strategy involves a larger set of primary schools (at least three schools in each of Thailand’s seventy-six provinces). Fifth and sixth grade teachers are learning how to carry out local studies of their respective communities. Provincial supervisors specializing in environmental education and trained by this project are responsible for this initiative. Finally, all fifth grade teachers in some 14,000 primary schools participating in a Ministry of Education school reform program have received some instruction on how to use community resources to improve science instruction. At the secondary level, the two participating rural secondary schools were selected by a major Thai foundation to serve as model schools to provide staff development to secondary schools in all four regions of Thailand interested in this approach to education. How these various strategies will evolve remains an important question.

Appendix

While the project officially began in May 1993, an earlier sixteen month planning period provided time for Ministry of Education staff and MSU faculty to collaboratively develop the project. The northern part of Thailand was selected because of its forested areas. These areas, like the rest of Thailand, are under heavy pressure from numerous interests, both inside and outside villages, to harvest trees. An indication of the seriousness of the situation and attending consequences for village life is the general decline in forested area across Thailand between 1975 and 1993, from 41 percent to 26 percent (RFD 1993). The project chose areas in two provinces near Chiang Mai where there had been some evidence of indigenous forestry management and/or training by Ford Foundation projects through the RFD and the Community Development Department.

Within these general geographic areas, discussions were carried out with nine primary schools to determine interest in joining the project. Six schools, three in each province, accepted the invitation to participate. Each group of three belonged to the same school cluster, a deliberate decision to facilitate cross-school collaboration. School size ranged from 168 students to 373 students with anywhere from 10 teachers to 22, plus one principal and one janitor per school. Student-teacher ratios were generally in the area of 17 to 1. Each school had a pre-primary program and six grades. One school in each province was an “expanded school,” which meant that lower secondary grades, seven through nine, had been added to improve student access to secondary education. These schools were typical Thai rural primary schools, as were the students. There were no hilltribe students in these schools.

Two lower secondary schools also participated in the project. Both were in the same province as one set of primary schools. These primary schools served as feeder schools (along with other primary schools not in the project). Data on the teaching and learning process in these lower secondary schools can be found in Wheeler et al. 1997 a and b.

To create school change, the project used six strategies:

1. *“Teacher as learner” training sessions.* Active teacher involvement in training sessions to create greater initial understanding of project goals and participant responsibilities than more traditional forms of staff development. Such involvement also modeled the constructivist teaching strategies central to this project.

2. A “*handbook/guide*.” The handbook/guide elaborated project goals, key concepts, strategies for doing a case study, and a model case. While introduced during the initial training session, it was designed to be used by teachers when they returned to their schools. Developed initially by the Ministry of Education–MSU project team, the handbook/guide was a draft document, to be used and modified by project teachers throughout the pilot phase in an effort to make it “user friendly” before being used by teachers during the expansion phase of the project and by teachers in non-project schools.

3. *Teacher collaboration*. By involving at least two teachers per building, teachers could share experiences and discuss strategies to solve problems. Principals were encouraged to support teacher efforts to implement the project, and project participants across schools met regularly at the school cluster office or at specific schools to share experiences and problems with colleagues and Ministry of Education administrative staff.

4. *Supervision*. Ministry of Education staff at different levels of the bureaucracy (cluster, district, province) were trained in a supportive form of classroom supervision that included a debriefing on teacher decisions made during the lesson or field visit rather than judgments on what was done “right” or “wrong.” These supervisors visited classrooms on a regular basis to provide ongoing support.

5. *Information*. Teachers were encouraged to develop links to information sources outside the traditional education system, such as officials in the RFD, Community Development Department, and Agriculture Department, as well as with community members possessing valuable indigenous knowledge.

6. *Incentives*. Incentives were used to reward teacher participation. In the Thai system, teachers who successfully carry out and document classroom “action research” projects can be rewarded with promotions. The project provided staff development to teachers in the requirements needed to document and submit their work to qualify for such promotions. In addition, the project encouraged policymakers from Bangkok to visit project sites to learn directly from participants about the accomplishments of the project. Finally the project provided seminars and workshops for teachers joining the project as well as schools interested in learning more about this way of teaching and learning.

To facilitate community change, the project created the conditions for two-way communication between schools and communities through the case study approach and student presentations to villagers. The case study provided the opportunity for teachers, students, and community members to interact. While student interviews drew upon indigenous knowledge of the origins and consequences of a specific problem, the process of interviewing adults was expected to increase awareness by

community members about the need to address the problem. Presentations to community members on findings were designed to generate interaction between schools and communities regarding possible alternative strategies to address forest-related problems identified by students. Schools were to assist villagers in identifying resource people, arranging visits to see related initiatives in other communities, and providing technical advice on specific alternatives. The anticipated outcome for schools and communities was the development of school–community partnerships focused on jointly developed projects.

REFERENCES

Alamgir, Mohiuddin. 1989. Participatory development: The IFAD experience. In Lineberry, William (ed). *Assessing participatory development: rhetoric versus reality*. Westview Press, Boulder, Colorado.

Asian NGO Coalition. 1991. *Community participation, NGO involvement and land tenure issues in the Philippines Reforestation Program*. Asian NGO Coalition for Agrarian Reform and Rural Development, Manila, Philippines.

Baker, Victoria. 1990. Integration of school and community for reciprocal development. Annual Conference of the Comparative and International Education Society, Anaheim, California.

Bacchus, M.K. 1982. Integration of school and community learning in developing countries. In A report of a workshop organized by the Department of Education in Developing Countries. University of London, London, England.

Bude, Udo. 1985. *Primary schools, local community and development in Africa*. Nomos Verlagsgesellschaft, Baden-Baden, Germany.

Bude, Udo. 1989. The primary school's role in development: Services for the improvement of local living conditions—facts and fallacies from Cameroon. German Foundation for International Development.

Dudley, Eric. 1993. *The critical villager: Beyond community participation*. Routledge Press, New York.

Hage, J., and K. Finsterbusch. 1987. *Organizational change as development strategy*. Reinner Publishers, Boulder, Colorado.

Harvey, Stephen, and Brian Hillier. 1994. Community forestry in Ontario. *The Forestry Chronicle*. 70 (6): 725-30.

Hopper, W.H. 1980. Education in a rural society. CESO, The Hague, Netherlands.

Komin, Suntaree. 1990. *Psychology of the Thai people: Values and behavioral patterns*. Research Center, National Institute of Development Administration, Bangkok, Thailand.

Lane, J. 1995. Nongovernmental organizations and participatory development: The concept in theory versus the concept in practice. In Nelson, N. and Wright, S. (eds). *Power and participatory development: Theory and practice*. Intermediate Technology Publications, London, England.

Lazerson, Marvin. 1971. Origins of the urban school: Public education in Massachusetts, 1870–1915. Harvard University Press, Cambridge, Massachusetts.

McLaughlin, Milbrey W. 1995. The rand change agent study revisited: Macro perspectives and micro politics. *Educational Researcher* 19 (9): 11-16.

Miller, Bruce A. 1995. The role of rural schools in community development: Policy issues and implications. *Journal of Research in Rural Education* 11 (3): 163-72.

Nagle, William. 1992. Policy and practice of community participation in the U.S. Agency for International development.

Poffenberger, Mark. 1996. *Village voices, forest choices: Joint forest management in India*. Oxford University Press, New Delhi, India.

Putnam, R.D. 1993. The prosperous community: Social capital and public life. *The American Prospect* 13: 35-42.

Reimers, Fernando. 1993. Education and consolidation of democracy in Latin America: Innovations to provide basic education with equity. Harvard Institute for International Development, Cambridge, Massachusetts.

Setty, E. Desingu. 1994. *Participatory rural development in Asia: A critical analysis*. Inter-India Publications, New Delhi, India.

Schiefelbein, Ernesto. 1992. Redefining basic education for Latin America: Lessons to be learned from the Colombian Escuela Nueva. *Fundamentals of Education Planning Series*, International Institute for Educational Planning, UNESCO, Paris, France.

Shaeffer, Sheldon. 1991. School and community collaboration for educational change. International Institute for Educational Planning, Ciapanas, Indonesia.

Torres, Rosa-Maria. 1996. Community participation in school or school participation in the community? *UNICEF Education News* 16: 26-27.

Tucker, Mark, and Ted L. Napier. 1994. The diffusion task in community development. *Journal of Community Development Society* 25 (1): 80-99.

Tyack, David, and Larry Cuban. 1996. *Tinkering toward Utopia: A century of public school reform*. Harvard University Press, Cambridge, Massachusetts.

UNICEF. 1995. Evaluation of Egypt's community school project.

Vasoo, S. 1994. *Neighborhoods leaders participation in community development*. Times Academic Press, Singapore.

Vettivel, Surendra K. 1992. *Community participation: Empowering the poorest*. Vetri Publishers, New Delhi, India.

Wheeler, C., M. McDonough, J. Gallagher, B. Sookpokakit, and D. Duongsa. 1997a. Linking school change to community participation in social forestry: A guided innovation. In Chapman, D.W., Mahlck, L.O., and Smulders, A.E.M. (eds). *From planning to action: Government initiatives for improving school-level practice*. Pergamon Press, Oxford, England.

Wheeler C., J. Gallagher, M. McDonough, and B. Sookpokakit-Namfa. 1997b. Improving school–community relations in Thailand. In Cummings, W. and Altbach, G. (eds). *The challenge of Eastern Asian education: Implications for America*. SUNY press, Albany, New York.

Viriyasakultorn, Vitoon. 1995. Community woodlots and their impacts on rural household fuelwood supply and rural development. Ph.D. Dissertation. Michigan State University, East Lansing, Michigan.

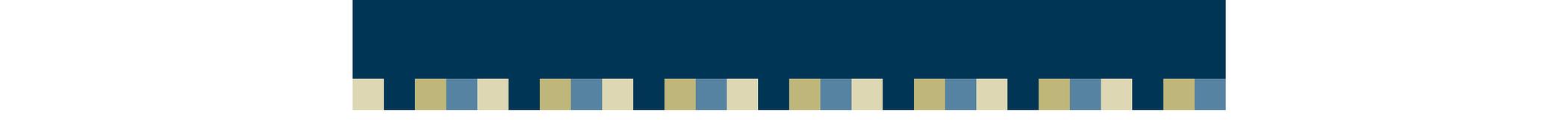
World Bank. 1994. El Salvador community education strategy: Decentralized school management. Human Resources Operations Division, Latin America and the Caribbean Regional Office Report 13502-ES.

World Education. 1995. Getting parents involved in their children's education: An overview.

For further information about the Social Forestry, Education, and Participation Project, please contact:

Dr. Maureen McDonough
Professor, Department of Forestry
126 Natural Resources Building
Michigan State University
East Lansing MI 48824
USA
E-mail: mcdono10@pilot.msu.edu
Fax: 517-432-1143

Dr. Christopher Wheeler
Professor, Department of Teacher Education
509E Erickson Hall
Michigan State University
East Lansing MI 48824
USA
E-mail: cwheeler@pilot.msu.edu
Fax: 517-353-6393



Toward School and Community Collaboration in Social Forestry: Lessons from the Thai Experience

This publication examines school efforts to use communities as laboratories for learning in Northern Thailand, provides insights into how schools can contribute to community efforts to develop sustainable solutions to local problems, and raises a number of important issues and questions for policymakers and practitioners alike.

About the authors

Maureen McDonough is a professor of forestry in the Department of Forestry at Michigan State University. Her work focuses on the interactions of people and natural resources and includes community forestry projects in Thailand and Detroit. She has studied public participation in natural resource decisionmaking in the United States, Thailand, Taiwan, Jamaica, and the Dominican Republic. She is currently involved in projects to expand participation by underrepresented groups in ecosystem planning in both the U.S. Forest Service and the Michigan Department of Natural Resources. She also has extensive experience in environmental education.

Christopher Wheeler is a professor in the Department of Teacher Education at Michigan State University. For the past decade he has participated in multiple research projects on primary education in Thailand. Besides Thailand, his recent research experience includes studies of primary education in Cambodia and Myanmar. In the United States he has been involved in an urban education reform program at the middle school level focusing on educationally disadvantaged youth.



For further information, please contact

ABEL Clearinghouse for Basic Education
Academy for Educational Development
1825 Connecticut Avenue, NW
Washington, DC 20009-1202

Tel: 202-884-8288

F: 202-884-8400

