INTRODUCTION

Major shifts in education are difficult to achieve, and usually are lengthy processes. Hawes, in 1973, suggested that major educational change may take as long as twenty-five years. More than twenty-five years after this was written, there is little evidence to suggest that his comment does not still hold true, especially in the case of universities. In comparison with other elements of formal education systems, universities seem particularly resistant to changes in organisational and educational strategies, processes and methodologies, even when functioning in dynamic external environments. The university sector in many countries seems to maintain a safe distance from theorising about teaching and learning, except in some Faculties of Education where such activity is tolerated. Being at the cutting edge of technological research and development, acquiring research funds and publishing articles in learned journals often attracts greater credence than making improvements in the way in which teaching and learning is facilitated. With a basis in Platonic or Confucian thinking, many universities and their teaching staff still appear to believe that they are repositories of expertise and knowledge which can be transferred effectively to learners through the process of telling and, occasionally, demonstrating. Few university teachers receive, or are required to undertake, training in pedagogical or andrological concepts and methods. In particular, it is rare to find evidence from the world of natural resources oriented education (although the work of Bawden and his colleagues at Hawkesbury University between 1989 and 1991 is a notable exception) of conscious efforts to develop and apply approaches in teaching and learning which actually prepare learners to lead effective and productive professional lives.

This paper aims to share experiences from a programme which does focus on improvement of approaches for teaching and learning at university level, through a novel approach to the development of forestry education in Vietnam. It first makes some general and rather theoretical observations on the nature of learning and change in education and training institutions in order to raise some key issues which may influence the change process in any setting. It then moves to a specific context, describing the historical background and the setting of the Social Forestry Support Programme. It explains the change which has taken place, and finally explores some outcomes which, it is hoped, will be of interest and value to others engaged in promoting learning through forestry education and training.

ORGANISATIONAL LEARNING AND CHANGE

Changes are taking place in many universities throughout the world, although these are often structural rather than conceptual, and it is likely that economic imperatives have been responsible rather than a perception of the need to improve the effectiveness of learning. During the late 1980s and 1990s there has been an increasing interest by many universities, often driven by pressure associated with greater external scrutiny, in developing a more systematic approach to change management. In order to achieve this, some universities have drawn extensively upon organisational and institutional development theory, with a key focus on quality, and even "Total Quality Management" (Harvey, 1994). These approaches stress the importance of comprehending the very nature of change. Some even go so far as to advocate the importance of observation and reflection upon the behaviour which organisations demonstrate in response to change, leading to "organisational learning".

The nature of "organisational learning" has been explored by a number of writers. One of the most influential is Schön (1983), who, beginning with the individual, describes a person who has mastered the art of learning as a "reflective practitioner". Brookfield (1995) has also written extensively on strategies for the improvement of learning through reflection in education institutions. The concept of reflective practice is linked closely with the experiential learning cycle developed by Kolb (1984), who proposes that learning is a cyclic process, of acting, reflecting, thinking, deciding, and again acting. This idea has been developed further by considering different levels of learning, or learning loops (Burgoyne, 1992). During the 1990s, much attention has also been given by a wide range of organisations to the concept of the "learning organisation" (Senge, 1990). From this perspective, organisations should not merely respond to change, but also bring about change, both within their own boundaries and the broader context in which they are situated, through a process of reflection, understanding and action. By increasing their capacity to learn, learning organisations should function more effectively and improve their chances of survival in a competitive world. According to Burgoyne (1992), the manner in which an organisation learns will determine its "learningfulness". The main challenge to be dealt with by the organisation is to learn how to learn.

Since it may be assumed, by definition, that a learning organisation has learned how to learn, it is perhaps strange that many universities, whose business is to encourage the learning of others, fail to show that they themselves have developed or implemented strategies for effective learning. Universities face a real challenge in trying to bring about organisational change in the face of restructuring and the threat of withdrawn or withheld resources, whilst at the same time ensuring that the quality of the education they provide is maintained or even improved. At the front line of this battle are the teachers and lecturers themselves, many of whom seem conscious that as professional demands upon them increase, their power within the organisation to make critical decisions diminishes. University staff in institutions throughout the world face new challenges and constraints almost on a daily basis, but how effectively do they conceptualise and manage the change process?

FACILITATING CHANGE

Individuals may instigate or respond to change in different ways, but if teachers wish to facilitate the learning of others, they need to learn how to manage their own change processes. Some educators are natural innovators, who know by intuition that education is a process of continuous revolution (Rowntree, 1981). They thrive on the possibility to seek out and try new ways of doing things; changes in the external environment present exciting opportunities for them to test and revise their theories about teaching and learning. Although these innovators may experience the pain associated with change (in the form of confusion, desperation, frustration, panic, and even boredom), they realise that pain is an integral part of the change process and are prepared to tolerate it, even developing strategies to avoid it. For others, however, change brings fear. These persons may wish to avoid pain at any cost, and one way to do this is to do nothing, or as little as possible. They are the "survivors". There may still be others who try to maintain the status quo, by influencing the system actively. They may become "blockers", hoping that change is unlikely to take place, and innovations have little opportunity for success. The type of professional behaviour displayed by a teacher will depend in part upon the influence of the institutional context in which they work, but also upon their own paradigm of teaching and learning.

All teachers hold their own teaching and learning paradigm, whether they are innovators, survivors, blockers, or various combinations of these at different times. Their paradigm may not always be well articulated, and may not have changed substantially for many years; it may even be a combination of several paradigms. For a paradigm to change, however, an individual needs to reflect on his or her beliefs regarding teaching and learning and, according to Freire (1972), to integrate theory with practice and with praxis, through experience. Only then is it possible for teachers to become effective learners themselves. Some critical questions should be asked of any teacher. What are the underlying principles which they adhere to? Why do they use certain tools and techniques rather than others? What theories make sense, personally, for them? What approaches and techniques do
they practice. How do they link experience with their theory and the application of this theory through practice? Unfortunately, many teachers and trainers do not ask themselves such questions on a regular basis, sometimes for very good reasons. They may be too busy, have too large and too many classes, or are paid so poorly that their motivation is extremely low. The organisations and institutions for which they work may be so inflexible and mired in bureaucracy that they offer little incentive or opportunity for innovative approaches. Indeed, “rocking the boat” may be discouraged, especially by institutional leaders and administrators, to an extent that stagnation is inevitable.

From the discussion so far, it may be deduced that for real, effective institutional change to occur, there is a need for change at both organisational and individual level. In universities where the prevailing paradigm is based on the belief that teaching and transmission of knowledge brings about learning, there is a need for a radical shift to a paradigm which is based on learning. Bringing this move about, however, is an extremely complex task.

A PARADIGM SHIFT FROM TEACHING TO LEARNING - BUT WHOSE PARADIGM?

In order to make the move from being a teaching institution to a learning institution, it is necessary that the organisation and the individuals who comprise that organisation learn how to learn. Through a process of acting (gaining experience), reflecting, thinking, deciding, and again acting, both organisations and individuals may articulate their own theory of learning more clearly and hence make change at a much deeper level than would normally be achieved. Establishing such a learning process is a complex task, however, and may appear rather abstract in a propositional context. Fortunately, there is a great wealth of experience on which teachers can draw for guidance and support. Many educators have expressed their vision for education and learning, espoused radical or innovative ideologies, principles and concepts, developed novel strategies, methods, tools and techniques. Some have described and evaluated their own experiences of teaching and learning. They have attempted to draw out and share learnings so that others might integrate these into their own personal understanding and beliefs about education, and construct their own theories of learning. As Kurt Lewin stated (cited in Sotto, 1994), “there is nothing as practical as a good theory”. Writers such as Rowntree (1981) and Sotto (1994) make the point that “competences” and skills in teaching and training are simply not enough. Teachers need theory which makes sense to them, personally, and to which they can relate. Introducing theory into the learning, should be followed by the means by which in turn the curriculum, strategies and approaches introduced. Even more importantly, what is learned should be shared with others, so that the innovations and interventions can be debated, challenged and improved. With this in mind, the next section presents a conceptual view of the particular intervention which is the focus of this paper: curriculum development.

CURRICULUM DEVELOPMENT: A FOCUS FOR LEARNING - WITH SOME LIMITATIONS

At the heart of all education and training programmes lies the curriculum. This is perceived, frequently, as a syllabus or list of contents. Curriculum development is much more than simply listing the content of a course; however, it takes into consideration the learning which the students achieve, the activities and experiences which bring the learning about, the process of planning and organising these activities and experiences and the piece of writing which embraces this planning. It may be defined broadly as “all the learning which is planned and guided by a training or teaching organisation, whether it is carried on in groups or individually, inside or outside a classroom, in an institutional setting or in a village or field” (Rogers and Taylor, 1998).

The curriculum is central to the teaching and learning process, so much so that some writers (for example Miller, Turner and Innis, 1986), have advocated “curriculum-led” institutional development as a vehicle for change. The degree of autonomy of teachers and even institutions in the development of curricula is very variable, however. In some universities, teachers and lecturers are able to make quite wide-ranging decisions on the development of the curriculum, subject to approval from the institution. In many education institutions, however, overall development of the curriculum resides in the responsibility of a few elite group located at the top of the hierarchy. Discussions about curriculum development also involve a small number of persons in senior academic and, in some cases, government positions, and usually centre around the content of teaching. There are two serious problems associated with this hierarchical approach. Firstly, the assumption is made that a small, privileged group is aware of the reality of the external environment, and that their own theoretical understanding and experience is sufficient to enable them to develop curricula which will bring about effective learning. Secondly, as discussed earlier, it is believed that learning will take place through transmission of knowledge, and that the subject-related expertise of teaching staff is sufficient to convey knowledge to the learners. Curricula developed using this approach rarely provide guidance to teachers and learners on how the learning process may be facilitated. Teachers are left to fend for themselves, amidst all the constraints which are present in large universities (Taylor, 1998). Even in those universities where teachers have a greater degree of autonomy in the curriculum development process, there is rarely any mechanism or agreed-upon principle for increasing the involvement of other stakeholders. The lecturer is still considered as the expert, and the assumption is made that he or she will deliver the goods as a result of expertise garnered through professional activities such as academic study and research, or through personal linkages with the relevant “industry” in which graduates will be employed. Once again, authority over what will be taught to the majority is vested in the minority.

In trying to cope with deficiencies such as these, a number of models of curriculum development have been proposed which go far beyond a listing of content to be dealt with in a specified time. One good example is the systematic model of Skilbeck (1984) which outlines five main steps: situation analysis, setting aims, planning, implementation and evaluation. Using a model such as this is very valuable, since it provides a basis for curriculum developers to consider how learning can be made more effective. It is not a blueprint, since each step provides opportunities for a variety of decisions and actions. It places emphasis on the learner, since an important aspect of this approach is the development of behavioural objectives, written in terms of what the learner should be able to do at the end of a given period of study (although the value of highly specific objectives for all learning contexts is certainly debatable). It also requires an understanding of the external situation or the context in which a training programme is located. It is still possible, however, for this approach to be applied by an unrepresentative minority. Situation analysis may well be invalid if it involves an individual or small group of curriculum developers basing their theory on their own narrow perception of external reality. In such a case, there would be a justifiable criticism that the predetermined nature of learning outcomes, and hence the selection of content, methods and materials, is inequitable. How is it possible to ensure greater equity, ownership and empowerment in the curriculum development process? These phrases tend, unfortunately, to be used as buzzwords in order to satisfy the requirements of policy makers, planners and donors. An approach has emerged during the 1990s, however, which attempts to make these ideas both meaningful and practical. This approach has been termed “participatory curriculum development” (PCD).

PARTICIATORY CURRICULUM DEVELOPMENT

A participatory curriculum development approach (PCD) aims to develop a curriculum from the interchanges of experience and information between the various stakeholders in an education and training programme. The rationale for this emerges from positive outcomes due to increased participation of different stakeholders in extension and community development activities. Many authors (for example Pretty, Guilt, Thompson and Soonee, 1995; Chambers, 1997; Hagmann, 1999), have described how participatory processes lead to increased effectiveness in planning, implementation and evaluation of rural development programmes. Building on lessons learned from field-based practice, a critical, formative element of PCD is the identification of stakeholders, who may include educationalists, researchers, policy makers, extensionists, foresters and farmers. Rather than belonging to a small select group of experts, PCD involves a wide range of stakeholders in a meaningful way, drawing upon their experience and insights in a structured approach to curriculum planning, implementation and evaluation (Rogers and Taylor, 1998). They may contribute to setting aims and learning objectives, engage in development of the subject matter being taught, and participate in the processes and experiences which lead to the achievement of those objectives (see figure 1).

Figure 1: The Participatory Curriculum Development Cycle
Classical approaches to curriculum development are characterised by a systematic planning procedure, an assumption of common goals for the learners, and the provision of adequate expertise, resources and technology. The PCD approach is characterised by the recognition of individual perception and behaviour and the variations in the social contexts of different groups of learners. It adopts a less structured procedure, and is based upon an appreciation that understanding and knowledge depend on a process of constantly shifting interactions between individuals, and between them and their environments (Schamhart and van den Bor, 1994). Whereas the classical model is a closed, uniform, predictable and "safe" curriculum the participatory model is a more open, varied, unpredictable and "risky" curriculum. The curriculum development process thus becomes an intervention which may have an impact upon individuals as well as on organisations and institutions.

The PCD approach is not new. There are a number of recent examples of initiatives in the area of forest education and training which attempt to increase the extent of participation in curriculum development, for example in east and southern Africa (Temu, Kasolo and Rudebjer, 1995; Järind, 1998), in Nepal (Dearden, 1998) and in the Philippines (Dalmacio, 1999). In all these cases, participation has been seen as a factor critical to the success of the curriculum development process, and efforts have been made to increase the extent of participation of different stakeholders through activities such as workshops, meetings and surveys. Frequently, stakeholders have been called upon to provide information on the nature of the jobs which foresters should carry out in their working environment, as in the DACUM approach (Temu, Kasolo and Rudebjer, 1995). There is no doubt that this is a sound way of working where jobs are clearly defined. In many contexts, however, the work of foresters and people engaged in forestry-related activities is changing so rapidly that the job cannot be used as a starting point. In these cases, job descriptions or profiles are often non-existent or out-dated, and so it is necessary to explore the context much more deeply and intensively. A wider range of tools and methodologies may be needed, and so approaches such as DACUM may be quite complementary as a component within the PCD process.

As discussed in an earlier part of this paper, interventions and innovations provide experiences which should be reflected upon. Although the authors noted above have documented and explored the lessons learned from some specific PCD-related activities, they have not described programmes which are underpinned entirely by the PCD approach. In Vietnam, PCD has been tested extensively within a programme of support to forestry education at university level. Indeed, it has provided the main focus for the entire change process with the programme. This has provided an excellent possibility to apply the basic concepts and principles associated with PCD in a real, dynamic context. The experiences gained have provided many opportunities for learning, and form the basis for the remainder of the discussion in this paper.

BRINGING ABOUT CHANGE: THE SOCIAL FORESTRY SUPPORT PROGRAMME IN VIETNAM.

The Context

Vietnam has undergone radical change on many different fronts in a relatively short period of time. The economic renovation associated with the government’s "open-door" policy has affected the lives of many people, and most sectors of the economy. Forestry is no exception, a fact highlighted by a range of authors and publications (for example, Quang Ha, 1993; Bhargava, 1998; Henderson and Veer, 1998; Ministry of Agriculture and Rural Development, 1998; CEMMA, 1998). As in many other Asian countries, a shift is taking place from control of large-scale forest management and production by central government towards conservation practices and small scale local management by individuals and communities. There is still a need, however, to maintain and develop productive and plantation forests, which can generate income for individuals, businesses and the state. It is vital, therefore, to develop policies, strategies and practices which consider the economic, environmental and social performance of the forestry sector (FAO, 1998).

Diversification of forest management practices creates a demand for a new type of "forester". A need will still exist for professional foresters who manage large-scale forest production, but there will be additional groups and organisations with new roles and responsibilities. These may include farmers who have been allocated forest land; extensionists, community organisers and facilitators who often have many years experience but are ill-prepared for newly emerging job requirements; policy makers and managers who have to understand and cope with the demands of new markets, structures and systems. Many of these new stakeholders will have to acquire a broad range of knowledge, skills and attitudes, some of which may be related rather
tenuously to "traditional" forestry. A wider range of educators is thus likely to become involved in forestry education, and many of them will need to change their approach to teaching and learning. The education and training programmes they develop should become more diverse, yet still relevant to the changing context, increasingly flexible yet well-integrated (Taylor, 1998a; 1999). Teaching and learning processes will need to become more dynamic and participatory, and the stake of students will increase as they take on a greater responsibility for their own learning. Ultimately, a major shift in current forestry education is necessary in order to keep up with the movement towards a "multiple stakeholder forest resource management system" (Hoang Huu Cai, 1999). Conceptually, as outlined above, PCD seems to hold the potential to achieve this shift. Can it fulfil the promise in the Vietnamese educational context?

Forestry Education in Vietnam

Education has always been viewed as important in Vietnam. The education system has been strongly influenced by historical influences and ties, with China, France, and more recently the former Soviet Union and other Eastern Bloc countries. Many senior policy makers and education administrators have graduated from universities in Eastern Europe, resulting in a rather consistent set of values regarding education and training. Consensus and common vision have contributed since independence to achievements of high national literacy rates and the establishment of a well-developed education system at primary, secondary and tertiary levels (Dang Kim Vui et al, 2000).

The Ministry of Education and Training (MoET) is responsible for the formulation of education and training and the overall state management of educational activities, but some sectoral ministries such as the Ministry of Agriculture and Rural Development (MARD) also have their own training and research institutions. This does create some overlaps in responsibility for education and training within the government system, both at national and at provincial level. At tertiary level, there are two national universities, one in Hanoi and one in Ho Chi Minh City, both of which comprise a number of colleges. Colleges outside these two centres are organized into four regional universities. The aim of this arrangement is to establish a more disciplinary approach at regional and national level by encouraging collaboration within and between multi-faculty or multi-college institutions. There is a clear distinction between the mandates of training and research institutions, since the main mandate of universities is to teach (although some research activities are being carried out when funds become available), whereas the mandate for research lies with specialised research institutions, some of which may also provide post-graduate education programmes.

Forestry education and training, like some other parts of the national education system, finds its origins in Vietnam's colonial past. Forestry education was first established during the French Colonial Period at the Ecole Superieure d' Agriculture et de Silviculture de l'Indochine. Graduates from this school were known as "controllers of water and forest". Although this school closed down in 1934 following the ending of French rule, it evolved into a new form as the Institute for Agriculture and Forestry, opening in Hanoi in 1954. It eventually gave rise to the institution known today as Xuan Mai Forestry University. The College of Agriculture and Forestry in Thu Duc also evolved from an institution created in the south of Vietnam in 1955.

Forestry education is now found in some vocational and technical high schools, and certain research institutions offer post-graduate forestry degree programmes. Farmer and local extension training related to forestry is also carried out by Extension Centres throughout the country. At university level, five institutions provide undergraduate degree programmes. Degree programmes have tended to be highly specialised and focused on specific disciplines. Areas of study such as agriculture and forestry have, until very recently, had a strong technical orientation, but it is with the realisation that degrees should adopt a more multi-disciplinary approach that the need for innovations in curriculum development has become apparent. This is one of the key reasons for the request by MARD for support to the development of forestry education in the Vietnamese university sector, and a fundamental component of the Social Forestry Support Programme (SFSP).

SFSP: A little history

The Social Forestry Support Programme (SFSP), funded by the Swiss government (SDC) and managed by Helvetas, started in Viet Nam in 1994. The main aim of phase one of SFSP was to respond to the rapidly changing approach to forestry in Viet Nam, and to support the development of social forestry education and training programmes in the Forestry College (now University) of Viet Nam in Xuan Mai. In the first three years of its operations, the SFSP managed to clarify the need and identify appropriate mechanisms for reforming the education of professional foresters, in order that they become more skilled, knowledgeable and responsive to the current changes in forestry practices. A key event during this period was a National Workshop for Social Forestry Education and Training, in 1996, which followed a national training needs analysis exercise. Important recommendations emerging from this workshop included the need to reduce the uni-disciplinary nature of forestry education and training, to update and improve forestry education curricula, to improve the capacity of teachers in methodologies, concepts and approaches, and to establish better collaboration and co-ordination between forestry education and training institutions (Dang Kim Vui et al, 2000).

Phase two of SFSP began in 1997, a four and a half year programme which involved a significant expansion of the scope and scale of its activities. Within SFSP2 there are seven Working Partner Institutions (WPIs). Five of these are the tertiary level educational institutions offering degree courses in forestry, which includes the Forestry University of Viet Nam (see table 1). The other two partners are a provincial extension organisation and a national research institute, whose involvement means that a strong link should exist between curriculum development, teaching and learning at institutional level with the realities of the field, thus broadening the base for learning. Support in SFSP2 is provided in three main areas, human resources development, generation of knowledge and information exchange. Participatory curriculum development is a key component of the programme since it has the potential to link and integrate these three programme areas, and also provides an effective means of intervention at both organisational and individual level.

Table 1: Details of Vietnamese institutions providing forestry education at university level.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Year estd.</th>
<th>Faculties</th>
<th>Areas of Study</th>
<th>Number of forestry students</th>
<th>Number of staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam Forestry University</td>
<td>Xuan Mai, Ha Tay Province</td>
<td>1964</td>
<td>Forestry</td>
<td>Forestry, Forest Management and Protection, Forest Business Administration, Forest Product Processing, Mountainous Rural Industry, Social Forestry Training Centre</td>
<td>3000</td>
<td>400</td>
</tr>
<tr>
<td>University of Agriculture and Forestry, Thu Duc</td>
<td>Ho Chi Minh City</td>
<td>1959</td>
<td>Agriculture, Livestock Breeding, Veterinary, Land Management, Aquatic Products, Agricultural and Forestry Economics, Agricultural Mechanics, Forestry</td>
<td>Forest Inventory and Planning, Silviculture, Forest Planting, Forest Product Processing, Social Forestry</td>
<td>300</td>
<td>45</td>
</tr>
<tr>
<td>Thai Nguyen Agriculture and Forestry University</td>
<td>Thai Nguyen City</td>
<td>1970</td>
<td>Cultivation, Livestock Breeding and Veterinary, Agricultural Economics, Forestry</td>
<td>Department of Silviculture, Forest Inventory and Planning, Forest Management and Protection, Social Forestry, Rural Development</td>
<td>400</td>
<td>26</td>
</tr>
<tr>
<td>Tay Nguyen University</td>
<td>Buon Ma Thuot, Dak Lak</td>
<td>1977</td>
<td>Medicine and Pharmacy, Teacher Training, Economics and Business</td>
<td>Silviculture, Forest Inventory and Planning, Forest Management and Protection</td>
<td>350</td>
<td>26</td>
</tr>
</tbody>
</table>
PCD in SFSP

A conscious effort has been made in the SFSP to avoid the temptation of a “quick-fix” adoption of ready-made curricula developed in other contexts. A key focus in SFSP has been, therefore, support to the building of local capacity in curriculum development. The PCD process began in August 1996 at Xuan Mai with a stakeholder analysis, performed by a small team who were managing the curriculum development process. It involved the identification of key stakeholders, an assessment of their interests, and the way in which these interests were likely to affect the curriculum development process. This helped to identify appropriate forms of stakeholder participation. The stakeholder analysis also estimated the degree of importance (the priority given to satisfying stakeholders’ needs and interests through curriculum development and subsequent training in order for it to be successful) and influence (the power and the extent to which people, groups or organisations are able to persuade or force others into making decisions and taking action) of each stakeholder within the PCD process. Finally, a stakeholder participation matrix (see table 2 later in this paper) was developed where different stakeholders were allocated potential roles and responsibilities. Once this participation matrix had been prepared it was possible to begin planning the different stages of the PCD process, as shown earlier in figure 1.

A working group was formed to develop strategic plans for curriculum development and a national social forestry training needs assessment was undertaken, culminating in a National Workshop on Social Forestry Training Needs. Curriculum development activities continued throughout 1997, still based upon the results of the stakeholder analysis. Teachers from several other University forestry faculties participated in these activities, a quite unusual situation in the Vietnamese context, and an important factor in the subsequent development of the partnership on which Phase 2 of the programme is based. A number of teachers received training in basic principles of participatory curriculum development, as well as in learner-centred teaching methodologies. Some Xuan Mai staff also became involved as consultants in several external projects, providing field-based training inputs. This exposure to the field reality was an important opportunity for staff to learn through experience and also to engage with different external stakeholder groups.

From early 1998 to mid-1999, with the expansion of SFSP2, a considerable amount of training was provided to the new WPIs. In parallel with this training, each university began to revise and develop curricula with continuous support from the SFSP. In addition the programme supported WPI and individual activities which would complement and enhance the PCD process. This amounted to a great deal of activity, sometimes resulting in an overload on key personnel. A summary of the main areas of training and support to PCD provided within SFSP2 is presented in Table 2.

Table 2: Training and Support to PCD Provided to WPIs during SFSP2

<table>
<thead>
<tr>
<th>Training</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Basic concepts and methods in PCD</td>
<td>● Training needs assessments</td>
</tr>
<tr>
<td>● Training needs assessment</td>
<td>● Institutional curriculum development through stakeholder participation</td>
</tr>
<tr>
<td>● Curriculum evaluation</td>
<td>● PCD collaboration; subject groups develop, implement and evaluate social forestry curricula jointly</td>
</tr>
<tr>
<td>● Short course development</td>
<td>● Attendance at relevant workshops, meetings and conferences</td>
</tr>
<tr>
<td>● Setting objectives in curriculum design</td>
<td>● Development of training strategies and plans</td>
</tr>
<tr>
<td>● Learning materials development</td>
<td>● Undertaking “contract” training for external organisations</td>
</tr>
<tr>
<td>● Learning materials production</td>
<td>● Building linkages with relevant organisations and institutions in Vietnam and the SEA region.</td>
</tr>
<tr>
<td>● Facilitation skills for rural development</td>
<td>● Complementary activities (including training where appropriate) in research, documentation, information exchange, HRD, organisational management, communications, gender strategy development.</td>
</tr>
<tr>
<td>● Learner-centred teaching methods</td>
<td></td>
</tr>
<tr>
<td>● Study tours</td>
<td></td>
</tr>
<tr>
<td>● Content specific training, for example in Participatory Land Use</td>
<td></td>
</tr>
<tr>
<td>Management, Community Forestry, Training of Trainers, Agroforestry,</td>
<td></td>
</tr>
<tr>
<td>Participatory Watershed Management, PRA, PTD.</td>
<td></td>
</tr>
</tbody>
</table>

Encouraging a collaborative approach.

One drawback observed during 1998-99 was the tendency for each university faculty to develop its own curriculum and teaching materials, even in basic subjects such as “Introductory Social Forestry”. From the perspective of SFSP, it was desirable to promote a greater degree of collaboration between partners, both in learning about PCD and in applying what had been learned through joint production of educational products (curriculum frameworks, learning materials, detailed content, etc.). There were several reasons for this. Firstly, it was clear that many of the concepts and principles were so fundamental that they should be included in the curriculum of each university. Secondly, collaboration could provide an opportunity for stakeholder views and inputs gathered by each WPI through TNAs, field research, workshops and other events to feed into the overall curriculum development process. Thirdly, as a response to the scarcity of experienced social forestry teachers in some universities, collaboration would enhance the sharing of critical human resources.

After an initial agreement on the principle of collaboration (see box 1), existing teaching materials were exchanged, and curriculum frameworks for three subjects were developed jointly, namely Introductory Social Forestry, Forestry Extension, and Social Forestry Project Management. Three subject groups, each of which included members from all seven WPIs, communicated through email and occasional meetings. It became clear from informal contacts that the subject groups were highly motivated and interested in this collaborative approach, although communications between group members was sometimes difficult due to distance, equipment breakdowns and shortage of time. Evidence for this enthusiasm emerged also during the SFSP Mid-Term Review, which found that the collaborative activities were well appreciated by the WPIs and other key stakeholders. The WPIs approved the PCD approach and stressed that they wished to continue using it.

Box 1: Initiating collaboration

Much discussion had been held regarding the need for collaboration in SFSP, but it seemed difficult to really get it moving. A critical moment came in April 1999 when one university representative stated that the programme should aim to encourage collaboration from the middle of 2001. At this point, the prospect of collaboration seemed rather distant, and perhaps unattainable. It was decided to bring together a group of representatives of the seven WPIs to discuss what they felt they could gain by working together. The subsequent June meeting was, in retrospect, a milestone in SFSP. Participants at the meeting discussed how they might work more closely together in a cordial and open manner. As the day wore on, however, no plan seemed likely to emerge from the warm but essentially fruitless discussion. Finally, the facilitator decided to leave the participants alone, having secured their agreement that they would set out an action plan before the end of the day. After some time, the group announced that they had reached agreement, apparently after quite a heated discussion, on a
based research and training needs assessments have been supported by the programme. These activities have involved very open discussions and preparation to finalise the frameworks, and to go into further detail regarding curriculum content, methods and materials for teaching and learning. This process is continuing into 2000, and hopefully beyond.

Managing stakeholder involvement

In September 1999, a key workshop was organised to which a wide range of stakeholders was invited (see box 2). This workshop had two main aims, to provide an opportunity for external stakeholders to give comments and feedback on the draft curricula presented at the workshop, and to encourage linkages and networking between a wide range of groups and individuals with an interest in social forestry education and training. Draft curricula were prepared by the subject groups, and a wide range of comments on the curricula were provided by participants at the workshop. It was well accepted by all participants that the curricula were not finished products, and that they should continue to develop in a dynamic way. A number of external stakeholders also expressed the desire to continue their participation in PCD activities. The subject groups agreed to meet again after some months of internal discussions and preparation to finalise the frameworks, and to go into further detail regarding curriculum content, methods and materials for teaching and learning. This process is continuing into 2000, and hopefully beyond.

Box 2: PCD review workshop

The WPIs formed a series of working groups, one for each of the subjects being developed collaboratively. Each working group agreed to prepare a common framework, with each university having the right also to add locally-relevant topics or material to the common part. The development of the framework was informed by different types of information and experience, which meant that the views and reality of a wide range of stakeholders were reflected. Some working group members also came from an extension centre and a research institution, thus further widening stakeholder input. Still, the vast majority of the curriculum development teams were university teachers. In more traditional approaches to curriculum development, this situation might have continued. Further involvement and contribution of stakeholders was seen as essential, however, in order to ensure that the subjects being developed were moving in the most appropriate direction. A major curriculum review workshop was organised to which personnel from national, regional and international forestry-related organisation, institutions and forestry-related organisations were invited. It was remarkable how many of those invited actually attended, considering the rather frequent occurrence of workshops in Hanoi. Also remarkable was the extraordinary effort put into the preparation for the workshop by the subject groups. This was the first time that they had been given the opportunity to "go public" to such an extent, and they rose to the occasion. The level of discussion and debate during the event itself was very intense, with comments ranging from highly critical to complementary. Overall, however, the atmosphere was both supportive and constructive. The ideas and opinions expressed have already informed the development of the subject curricula, and new linkages between different organisations and programmes have been fostered. Most importantly, the establishment of positive professional and personal working relationships is ensuring that the learning process is shared, and is likely to continue into the future.

A review of PCD in SFSP2 took place in December 1999. This provided a checkpoint enabling all those engaged directly in PCD in SFSP to review progress, to reflect upon the approach, and to suggest ways of enhancing the process. It was also a milestone in a period of intensive training and support provided to WPI personnel. Many of the points and issues raised were of great interest for the development and application of the PCD approach, and provided a number of useful lessons. Since then, subject groups have been meeting together at regular intervals. The collaborative process seems now to be well established.

Learning from experience

The PCD approach has now been used in forestry faculties in Vietnam since 1996. What has been learned from this experience? Are there lessons which have more general application beyond the Vietnamese context, or are the benefits limited to those institutions involved directly? There are several issues which can be highlighted.

Managing stakeholder involvement

In SFSP, the level of stakeholder involvement has been quite high. A range of participatory activities such as PRA, Participatory Technology Development (PTD), field-based research and training needs assessments have been supported by the programme. These activities have involved very diverse groups of stakeholders, and have been linked or integrated within the PCD process. The stakeholder analyses carried out at the beginning of the PCD process also ensured that stakeholder involvement was increased. The extent of this involvement is shown in the completed “actual” participation matrix in Table 3. Normally this matrix is used as a planning tool, but this example shows that it can be used also for monitoring and evaluation purposes, by comparing planned and actual stakeholder participation. The table indicates that stakeholder participation has, overall, been high, although there is still some improvement to be made in the implementation and evaluation steps of the PCD cycle. The table does not reveal the intensity nor the nature of involvement of each stakeholder group in the different steps, however. It is important to acknowledge that raising false expectations can and does sometimes occur. Also, increased stakeholder involvement has sometimes resulted in the introduction of different agendas and interests which may actually reduce efficiency or effectiveness. Although rarely observed in the Vietnamese context, hostility and resentment may be as much a part of an interaction as encouragement and support. In order to address these issues, an effort has always been made in SFSP activities to ensure that stakeholder expectations are clarified at the beginning of any engagement. Not all hidden agendas are revealed, but a real effort is made to ensure that discussions are as open as possible. Activities are also monitored and evaluated in an attempt to gauge whether these expectations have been met.

Table 3: Stakeholder Participation Matrix showing actual participation observed during SFSP

<table>
<thead>
<tr>
<th>Stage in cycle</th>
<th>Type of Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informed</td>
</tr>
<tr>
<td></td>
<td>Consulted</td>
</tr>
<tr>
<td></td>
<td>Partnership</td>
</tr>
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<td></td>
<td>Control</td>
</tr>
</tbody>
</table>
Certain Vietnamese stakeholders have proved more difficult to engage with than others, especially those at a higher level in the system, for example from Ministries, or senior managers in universities. Engaging with policy-related stakeholders is critical. In general in Vietnam, national government policy (for example education and forestry policy) is seen as supportive by universities, thus enabling the development of forestry education programmes. Policy can change, however, and there is a need to ensure a continued match between the PCD approach and the policy environment. This may necessitate shifts in the overall PCD strategy, but also universities may have an important advocacy role in influencing the development of relevant policy, especially as they become more involved in field-based research which yields reliable and quality data and information.

The potential for collaboration with relevant groups of stakeholders seems to be dependent on existing linkages and relationships, many of which are personal. It is more difficult to build up the interest and motivation of different stakeholders in collaborating with others when the benefit is not clearly recognised. It is important to find out more about the motivating and enabling factors which will not only initiate stakeholder involvement but also sustain it. This may encourage "innovators", support "survivors" and help to bring "blockers" on board (see box 3). It is useful if findings or outcomes such as these are disseminated to key groups and individuals, so that they are aware of the benefits of PCD.

### Box 3: Motivating stakeholder involvement - benefits seen from PCD in SFSP

1. One motivating factor might be the possibility for different stakeholders to compare their practices and to share experiences, thus learning from each other. This is already happening in SFSP through events such as the curriculum review workshops, and also through information and articles contributed to the SFSP website and newsletter.
2. Another perceived advantage could be that the quality of educational programmes developed using a PCD approach is significantly better than through the use of more traditional approaches, and that stakeholders at different levels are more satisfied as a result. There are signs that this is also happening, as curriculum planning is now including the development of innovative learning methods and materials. Implementation of social forestry subjects in 2000 using these new methods and materials will reveal the extent to
which the quality of teaching and learning has improved.
3. Yet another benefit could be an increased profile and reputation (and possibly income) for individuals and organisations as a result of being seen to be involved in a successful innovation. Again this is being observed as a wide range of projects and programmes are now seeking support in training and research from the university forestry faculties, to the extent that some key persons are becoming overburdened with work for different organisations.

Information exchange

As more stakeholders become involved through the PCD process, the need for relevant information increases. This has been demonstrated clearly within the SFSP programme, where the universities’ desire to exchange and share information only really became apparent once collaboration in the development of joint products had commenced. Although having access to information is desirable, managing and organising the flow and use of this information brings its own challenges. Stakeholders in forestry education in Vietnam are now articulating their need not only for documents, but also the need to share ideas, information and experiences, both inside and outside the network.

Continued training needs assessments and more field-based research are seen as especially desirable, since they contribute to the flow of information between key stakeholders, and also between Vietnamese and international organisations and institutions. Innovative approaches, which improve the way in which information exchange functions, are certainly complementary to the PCD approach.

Capacity in application of PCD methods and approaches

Human resource development is a specific objective of the SFSP. A great deal of training has taken place within the programme (as shown in table 2), and post-course participant evaluations indicate that this has been a critical element in the PCD process, acting as a “kick start” to PCD being introduced in universities. More support and training is still needed, however, demonstrating the intensive requirement for inputs of different kinds. Specific areas for further support within SFSP relate to actual content of the curricula which will be developed (see box 4), methods of teaching and facilitation skills, analytical and reporting skills, as well as ongoing training in the basic PCD concepts and methods. The number of staff in a university who receive relevant training in educational methodologies and processes will be limited, naturally, by the extent of the support available. In SFSP, core groups of staff have received initial training, and then follow-up training events are often organised “in-house”, in order to disseminate what has been learned to a wider audience. This second round of training usually requires further support, however, since the new trainers, although enthusiastic, may not have had enough experience in application of key knowledge and skills. It is important to recognise that new training needs will emerge as a result of the introduction of PCD, and that certain groups may need special support in order that they may participate more fully and meaningfully. Young and inexperienced teachers need help to understand new principles and approaches. Some groups such as female staff, farmers or field extensionists may be marginalised and thus require specialised or additional inputs and attention.

Box 4: Capacity in development of curriculum content

Development of content is a particularly tricky issue in the SFSP, since social forestry is a relatively new concept in Vietnam, and much is still to be learned about what it means in practice. Social forestry “subjects” being developed in Vietnam range from the broadly technical (e.g. animal husbandry, agroforestry) to the conceptual (e.g. introductory social forestry) to the methodological (e.g. forestry extension, rural appraisal methods). Experiences gained from the field certainly have a value as they enable teachers to understand the reality of the environment in which their graduates will work. Involvement in field-based activities is also crucial in attitude formation, for teachers and students alike. Such experiences are not sufficient alone, however, for full development of all the subjects in the forestry curriculum. There is a need to look beyond the nearest horizon, and it is important that information about different practices in other contexts is made available to those developing the detailed curriculum content. Stakeholder involvement and collaboration helps to achieve this. Having said this, social forestry practices in other countries in the SEA region, or even further afield, may have little relevance to the particular context of Vietnam, and there is a real danger associated with the introduction of “models” developed in other countries. Appropriate support to the development of curriculum content will be a significant component of SFSP in the future.

As the capacity of teachers in PCD increases, many new opportunities for the improvement of forestry education in Vietnam start to arise. Expectations will inevitably be raised among some stakeholders about what might be planned, undertaken and achieved. As mentioned above, the involvement of different stakeholders means that different interests need to be accounted for and responded to. This may lengthen processes and present new challenges and obstacles. It is important to try to help stakeholders match their expectations with their current capacity to develop, implement and evaluate teaching programmes. They should also be assisted to extend their capacity through the development of appropriate HRD strategies. In many Vietnamese teaching institutions there is a shortage of staff with experience, knowledge or skills in specific areas such as extension technologies and approaches, or gender. There is a need, therefore, to identify potential human resources and to facilitate their development through training and their involvement in relevant activities. Even so, success will depend to a large extent on the motivation of individuals to become involved in such activities. Fortunately for SFSP, many WI personnel have identified attitudinal change, particularly commitment, interest and enthusiasm, as one of the major benefits from the PCD process. This may become a critical success factor in the future.

SOME FINAL COMMENTS ON PCD

PCD can act as a powerful vehicle for educational intervention, but there are some limitations and constraints

A sustainable improvement in the quality of education is, potentially, a major benefit from the PCD approach. As demonstrated in the SFSP, PCD can provide a means for intervention at both organisational and individual level. This is a key strength of the approach. One limitation to PCD, however, is the increased demand on time and other resources compared with more traditional, systematic approaches to curriculum development. It is possible that collaboration and stakeholder participation may end or be reduced when a support programme such as SFSP ends. Another limitation is the difficulty of maintaining the interest and commitment of different stakeholders, and the adverse impact caused by personnel experienced in PCD moving on to other unrelated institutions or positions. These limitations have potentially serious implications. If a PCD approach is only possible when time and resources, both human and financial, are virtually unlimited, then it will become unsustainable, and hence have little applicability in most contexts.

Support strategies are critical to success in PCD

Attempts have been made in SFSP to respond to the constraints and limitations described above. Three strategies in particular are worthy of mention.

1. Human resource development has been a key element of the programme and, in order to build up institutional capacity in university forestry
faculties, an effort has been made to work with the core teams of teachers over an extended period of time. Training has been provided in the development of HRD strategies which have a foundation in institutional realities, rather than basing them on false optimism about what individuals may be able to achieve alone. Teachers have been made aware of the PCD approach, and then provided with concrete training in basic knowledge and skills in the PCD process. Considerable attention has also been paid to attitudinal development.

2. Stakeholder involvement has been encouraged from many different levels of the WPIs and other organisations. This has led to a wide awareness of the PCD process, has helped to identify key resource persons, and may increase the chance of institutionalising the approach.

3. An important aspect of SFSP has been to encourage sensible and realistic planning by the WPIs, particularly in regard to available resources. Much of this planning has been participatory and process-led. As a result, the "version" of PCD which has emerged does seem to be well suited to the cultural environment of Vietnamese universities. This could be one of the most important reasons why PCD will continue to adapt and evolve successfully over the coming years.

More is still needed

Even though these strategies have brought some success, there is still much more to be accomplished. It is important to identify the real benefits from using the PCD approach, so that the increased demand for time and resources can be weighed against the improved quality of outputs. An efficient monitoring and evaluation system needs to be instituted, because without sound data on the quality and quantity of inputs in relation to outputs, it is very difficult to estimate the real advantages and disadvantages of PCD. Hopefully, as PCD is adapted, introduced and utilised in different contexts, more evidence about its value will emerge, even though it may take many years for any real impact to be identified.

Much has been learned

Although impacts are not yet identifiable, there is some hard evidence, presented and validated through the SFSP Mid-term review, that change is taking place. New forestry curricula are being developed, involving many stakeholders in a collaborative approach. Relationships are emerging at both institutional and individual levels. Linkages and networks are evolving between education, research and extension institutions. Information is being generated in different contexts and being shared. Complex concepts and approaches are being discussed and debated by different stakeholders. Alternative and innovative methods and materials are centered around the need for learning rather than teaching requirements. There is a sense of ownership of the PCD process by the working partners, and a realisation that this approach has presented many opportunities for learning.

The potential for wider adaptation and application

There is a question of whether the PCD approach could be relevant for forestry education institutions in contexts beyond Vietnam. As discussed earlier, PCD is, by nature, flexible and dynamic. There is no blueprint. This means that the approach lends itself extremely well to local adaptation, especially since local stakeholders may be very influential in the evolution of the process. The key to success in the Vietnamese context has not been the supply of expensive facilities or physical resources, but seems instead to have centred around the nature of the support to individuals within the focus institutions. SFSP does have an advantage here, since there is a continuous programme of support, with a full-time support unit. Still, some interesting learning points have emerged from the SFSP PCD experience which may have value for others intending a similar intervention, even in cases where support is provided to a more limited extent:

- educational experiences and interventions provided by the SFSP in the early stages of the programme were both effective and appropriate. This provided a positive message to the SFSP partner institutions;
- based on the success of this initial orientation, the SFSP partners reached, at individual and institutional level, a consensus that PCD is a relevant and useful approach in the Vietnam context, and as a result of forming this new perspective, became open and receptive to the ideas presented. This was absolutely critical for the learning process, and seemed to be one of the most powerful motivations for change;
- having reached consensus and been exposed to new approaches and methods through a programme of awareness-raising, training and different experiences (involvement in research, fieldwork, study visits etc.) the SFSP partners were able to identify and articulate their needs clearly regarding PCD;
- the programme tried to respond swiftly and effectively to these newly articulated needs and demands, by providing further training, coaching and support. Individuals in the WPIs were thus willing and able to engage more actively with concepts and methods ranging from the simple to the complex, and made a real effort to understand, adapt and apply them;
- finally, SFSP personnel worked hard to develop a sense of familiarity and empathy with the Vietnamese context, and especially with the individuals in the WPIs who were involved in key activities. The establishment of excellent personal relationships may have been one of the most critical factors influencing the successful outcomes seen to date.

IN CONCLUSION

A great deal of both organisational and individual learning will continue to take place as forestry education develops in Vietnam. Marilyn Ferguson (1980) noted that only a new perspective can generate a new curriculum. PCD should indeed lead to the development of new curricula, but it is also enabling organisations and individuals to develop a new perspective on learning, thus bringing about real, long-term change and development.

REFERENCES


CEMMA (1998), Development Approaches in Highland Communities. Hanoi: Highland People Programme


Notes

1Discussion paper prepared for the Forestry Education Workshop, Vietnam, April 2000

2Technical Adviser, Education and Institutional Development, Social Forestry Support Programme, Helvetas, Vietnam
In Viet Nam, state forestry is being turned, increasingly, into people's forestry or, as this kind of forestry is called, "social forestry" (lam nghiep xa hoi); forestry of the people carried out by local people for their own benefit. The transfer of management authority over the open forest land, as well as over the forests, is encouraged actively by the State. In essence, the State now recognises that farmers, previously regarded as responsible for the destruction of the forests, are now the force that can best protect the forests and secure the best use of the forest land.

A fourth subject framework for Agroforestry was also developed within an Agroforestry Curriculum Development Guide by members of the SE Asia Network for Agroforestry Education (SEANAFE) at a regional workshop in Hanoi, hosted by SFSP. This will be "localised" during 2000.