

7. Participatory Management and Evaluation in Community IPM

Community IPM requires an approach to management and evaluation that encourages a congruence between ideas and approaches throughout the programme. The Community IPM model encourages an “adaptive management” approach by farmers to sustainably engage with the complex systems in which they live and work. The model is based on incremental, experiential learning and decision-making at the community level. To support this model continuous monitoring and feedback processes are required at the community level (Jiggins and Roling, 1999). The model encourages multi-stakeholder participation and is focused on developing more sustainable relations between people and their environment. The Community IPM model needs a management and evaluation system that encourages and supports the “adaptive management” approach. Farmers and facilitators must be part of the decision-making and evaluation activities that make up the management system supporting a Community IPM programme. This chapter presents a discussion of participatory management and evaluation in the context of Community IPM programmes.

7.1 Management

FFS Alumni are developing their own village IPM programmes across Asia from Nepal to Cambodia. The management context for Community IPM needs to not only be flexible and responsive, but also ensure that decisions are made as close to the field level as possible. Alumni must have



the opportunity to participate in the management system.

Alumni designing their local IPM programme.

Michel Pimbert’s analysis of agriculture biodiversity management paradigms provided the inspiration for the following matrix (Pimbert, 1999). The matrix (see Table 7.1) compares two management models based on a set of key institutional attitudes or patterns of behaviour. The first model is the “Conventional” approach to management generally found among, or aspired to by the centralised agriculture services developed during the Green Revolution. The second model describes a management system that can effectively support farmer led Community IPM field activities. This second model has been termed the “Community IPM Model”.

A Comparison of Agro-ecological Management Models

	Conventional	Community IPM
Starting point	Resources valued extrinsically based on the market place.	Recognition of the inherent value in the diversity of resources and people.
Key word	Development	Empowerment
Locus of decision making	Centralised, ideas originate in capital city, professional/expert based.	Decentralised, ideas originate at village level, people based.
First steps	Data collection and plan	Awareness, knowledge creation, and action
Design	Static, professional based	Evolutionary, people based
Main resources	Central funds, professionals, & technicians	Diverse includes villages, their people and assets
Analytical assumptions	Reductionist (natural science bias)	Systems, holistic
Management focus	Budgetary, projects meet deadlines, targets	Sustainable improvement and performance
Communication	Vertical: orders go down, reports come up.	Lateral: mutual learning, sharing of learning and experience
Evaluation	External, intermittent	Internal, continuous, interactive and participatory
Error	Covered up, explained away	A basis of learning
Relationship with people	Controlling, policing, inducing, motivating, dependency creating. People as objects.	Enabling, supporting, empowering. People as acting subjects.
Outputs	The empowerment of professionals. A uniform reactive agricultural "system".	The empowerment of rural people A diverse and inter-active local approach to agro-ecological management.

Table 7.1 Agro-ecological Management Models

A look at a few of the key attitudes and behaviours that constitute the comparison is revealing.

Starting point describes the philosophical perspective of a management system regarding the resources, natural or human, involved in an agro-ecological system. The Conventional model takes an extractive perspective, resources are valued in terms of what they will yield or can be processed to yield on the market, national or international. Humans that are involved in the system are important only in so far as they can get product, in sufficient volume, to market. The Community IPM model values natural resources and the humans involved in working with those resources. Rice has a culturally based value; people are not machines but impart value to all that they come in contact with. Thus, for example in Cambodia, Community IPM activities are designed to provide opportunities for all of those in a village engaged in agriculture including the children, disabled, illiterate, and landless to achieve their potential as human beings.

Key word describes the intention of the management model concerning the people and resources connected to an agro-ecological system. The Conventional system intends to *develop* humans as objects to be manipulated so that resources can be extracted or processed for the market. The human factor in this system is neither intelligent nor endowed with the right to control what he or she does or “owns”. The Community IPM model takes the position of *empowering* humans to control and decide about the processes and resources that they own. The Community IPM approach includes regular forums for farmers to set strategies and plan activities that are then used as the basis for planning inter-regional and national programme activities as well as proposals for leveraging local support.

Locus of decision making refers to who is making the decisions and where they are located. Conventional systems are heavily centralised. Relatively few people are involved in taking decisions. These people are the senior professionals/bureaucrats who often have the added cachet of being “expert”. The Community IPM model employs a decentralised approach to decision making. Consistent with a basic principle of Community IPM, “farmers as experts”, farmers are involved in the management process. In the countries involved in Community IPM many opportunities are open to alumni and facilitators to engage in management activities. Farmers conduct participatory strategic planning exercises to develop goals, strategies and plans and take decisions regarding activities that they want to conduct to achieve their goals. Facilitators and Farmer IPM Trainers regularly hold management meetings together to decide about resource allocations to support field activities. In Vietnam Farmer IPM Trainers have participated in national level Community IPM planning sessions as well as in the designing of evaluation systems. In Indonesia the National IPM Farmers Association and the Community IPM team regularly meet to decide about allocation priorities, programme duration, and specific activities.

Management focus describes the concerns of the system. The main concerns of the conventional are budgetary, deadlines, and targets (e.g. numbers of farmers “contacted”, tons of rice harvested). The Community IPM model is concerned about the quality of its activities. The model seeks to enhance the capacities of people, both those involved in the system and those touched by the activities conducted by facilitators and alumni. The Community IPM model seeks sustainability. A concern of management within the Community IPM model is that participants in the model continue to learn. Training is regularly available for FFS facilitators and Farmer IPM Trainers. Regular technical meetings are held for alumni to exchange information regarding field studies, village IPM programme development strategies, and successful alumni created farming innovations.

Error in the conventional model is either covered up, explained away, or avoided by risk averse decisions. The model shifts responsibility for mistaken decisions from the professionals who made them to the farmers who were the victims of

the mistakes. In the Community IPM model, mistakes are used as a basis for learning. If activities fail to achieve hoped for results, the implementation of the activities is examined to determine whether changes can be made to improve a given situation or whether something entirely different needs to be done. Farmer and facilitator technical meetings often contain sessions that analyse farmer strategy or tactical problems in terms of: “What worked?”, “What didn’t work?” “Why?”, “What can be improved?”, “How can it be improved?”. This analytical approach allows alumni and facilitators to openly examine shortcomings and discuss ways of overcoming them.

Outputs describes what the management system hopes to achieve. In the case of the Conventional model, it is obvious that it hopes to be recognised for its professionalism, that targets are met. The model empowers the professionals within the system. As the system is risk averse, it becomes reactive rather than dynamic. The Community IPM model seeks to empower rural populations by putting them in control of the resources that they own or jointly utilise and establish a system that is inter-active or adaptive with the existing ecological conditions.

In putting management systems together to support Community IPM the key has been to build from the bottom up, starting at the local level. FFS facilitators, IPM field leaders and farmers have developed and managed complex Community IPM programmes around the region. Planning and budgeting needs to become locally specific. To do that, various strategies have been employed. In Indonesia, district IPM leaders, FFS facilitators, and alumni developed activity plans and budgets based on local strategies that were aggregated in to sub-regional plans. In Vietnam, Community IPM farmers and facilitators designed locally specific plans that were aggregated into provincial plans. In both countries the major management tasks were implemented locally: evaluation, administration, planning, budgeting, FFS implementation, building networks and human capital development were placed in the hands of farmers, facilitators and IPM field leaders. The result has been not only successful farmer led village IPM programmes, but the development of highly skilled management teams.

7.2 Participatory Evaluation

The purpose of evaluation in Community IPM is to provide the leaders of these activities, farmers, the information that they need for their management decisions. The goals of evaluation within the context of FAO Community IPM activities include:

- Providing alumni and IPM trainers the opportunity to develop their evaluation skills so that they become better leaders/managers of Community IPM activities at the local level.
- Providing leadership of Community IPM activities at all levels with the information they need to take effective decisions to enhance the impact of those activities.

- Providing alumni and others with information concerning the progress achieved by alumni in institutionalising IPM at the local level.

Evaluation activities must be useful to farmers. The best way to assure this is to give farmers a role and a share of control in each stage of any evaluation activity. As Community IPM develops at the village level and farmers are conducting their own IPM activities they need to have the tools to evaluate those activities to determine whether they are achieving their goals. Farmers need to be able to review what they have done in the context of their local conditions and take decisions regarding future activities.



Mapping farm and village conditions.

If IPM field trainers have relevant evaluation skills, they can train farmers so that farmers can effectively evaluate their own local programmes. Community IPM Programmes have depended upon both IPM field trainers and farmers for the implementation of evaluation studies. To successfully conduct any evaluation study both farmers and IPM trainers need to be able to:

- Design an evaluation study;
- Conduct direct field observations of IPM farmers' activities, fields, and studies;
- Lead focus group discussions with IPM alumni and others;
- Lead open-ended interviews of farmers, officials, IPM field staff and pesticide dealers;
- Collect secondary/corroborating data relating to activities, pesticide sales, health issues, etc.;
- Map farm and village conditions;
- Apply the analytical frameworks discussed later in this chapter;
- Prepare appropriate reports based on the evaluation results.

Using a participatory approach that puts alumni in a position where they share control over the activity ensures that alumni learn about conducting evaluation studies and increases the likelihood that alumni will benefit and utilise the results from the exercise. Involving alumni in design decisions, study implementation, data analysis, and report is essential.

Besides interviews with individuals there are a wide variety of group participatory activities that can be used to collect data. Group activities might include:

- "Mapping" the history of the development and spread of IPM activities in a community. A time line of critical events, activities, individuals, organisations,

etc. can be identified via this activity. The activity can point out where and with whom follow-up interviews are needed.

- Mapping sites of FFS's, IPM groups, Farmer IPM trainers, local leaders, field problems, sites of studies by alumni, etc. can also help to determine who might be able to provide further information other than the immediate group of alumni.
- Conducting extended field observations to determine the state of "health" of the agroecosystems in alumni fields can help to determine the benefits of IPM at the field level (this could be a comparative study) and provide a cross-check on alumni reported insecticide use.
- Studying the incidence of pesticide poisoning among alumni and non-alumni would help to determine the impact of IPM on people's health.

The following participatory evaluation activities are taken from a "field guide" for participatory evaluation activities. The field guide was developed and used in participatory evaluation studies in Indonesia in 1998 and 1999. The two activities are intended to help farmers and trainers identify IPM activities conducted in a community and farmers' perceptions of results and benefits from the activities. The goals of these activities are to: a) raise alumni's awareness of the history of local IPM related activities and the outcomes of these activities; b) identify potential issues, people, activities, etc for follow-up interviews by farmers and trainers. Participants in the activities included alumni and trainers.

Box 7.1

Identifying IPM Activities

Background: As this is a village where a local Community IPM programme has been active, both the national IPM programme and farmers will have been conducting IPM activities in the village. We want to identify these activities. These may be FFS's, farmer IPM field studies, alumni organising activities, meetings, etc. Each of these activities will have



Alumni analyzing results of IPM activities.

immediate results and longer term results. During this activity ask

participants to identify all of these activities and their immediate results. Start with a discussion of what is meant by "immediate results". If it is easier make it two steps. Identify FFS's implemented, where, when, and by whom. Then identify post-FFS activities including what, where, when, and by whom. Then ask about the immediate results of each activity.

Goal: Participants develop history of IPM activities in the community and their results for follow-up study.

Time: Three hours.

Materials: Newsprint, felt-tipped pens.

Process:

1. Have the group define “immediate results”. A brainstorming activity would be useful to do this.
2. Divide the group into small groups. Each group should prepare a matrix with columns headed: “FFS Activities”, “FFS Results”, “Post-FFS Activities”, “results”, etc. Ask each group to first identify these activities and for each try to determine where, when, and by whom they were conducted. Then ask them to identify the results of those activities. Each group should report out the results of their small group efforts.
3. In a full group discussion ask the participants to identify general categories, for example, “field ecology”, “empowerment”, etc., that the results of IPM activities tend to fall into.

Identification of the Benefits of IPM Activities

Background: We are now familiar with the IPM activities conducted in the village either by the national program or by IPM alumni. As well, specific immediate results have been identified. We do not yet know the perceptions of participants regarding the long-term benefits or impact of IPM activities in a community. Generally, IPM activities can be seen to have a specific immediate result. For example, if we conduct a study on urea we can discover the benefit of using urea at certain rates of application. Thus the immediate result of the study can be said to have been what was learned from the study. Benefits then arise as a result of farmers applying what they have learned from the study. Examples of possible benefits or impacts arising from this study would include:

- Other studies are conducted to sharpen farmers understanding of the first study’s results (benefit: other farmers learning to conduct studies);
- Information regarding improved urea use practices is spread to other farmers (benefit: more farmers know about good fertilisation practices);
- Other farmers start using urea at more advantageous application rates (benefit: improved practice being implemented by x number of farmers);
- The yields of farmers using the improved practices that were a result of the study (benefit: an increased yield of x per hectare, improved incomes, improved welfare, etc).

In a sense each successive IPM activity is the result of earlier IPM activities. Initial activities should lead to a long chain of activities and benefits.

Besides identifying the benefits of IPM activities in the village, it is important to analyse why they came about. We want to know what caused these benefits. These “causes” are the strengths that are shared among IPM alumni, their groups, or their community which resulted from IPM training or IPM field activities. These strengths represent the potential for further development of the IPM movement in the village. These strengths could include such things as:

- Alumni knowledge of ecology;

- Alumni attitude changed from followers of traditional beliefs to creators of local knowledge by means of field studies;
- Local government funds available for well reasoned agricultural development plans;
- Information network among alumni and other farmers;
- IPM knowledge spread to non-IPM trained farmers;
- Critical thinking skills of IPM farmers;
- Organisations formed and their activities;
- Attitude of local leaders towards IPM, alumni, alumni organisations;
- Etc.

Goal:

Participants aware of some of the benefits of the IPM activities conducted in their community and identify strengths to help in the planning of further IPM activities.

Time: Two to three hours.

Materials: 4" x 8" note cards, newsprint, felt-tipped pens.

Process:

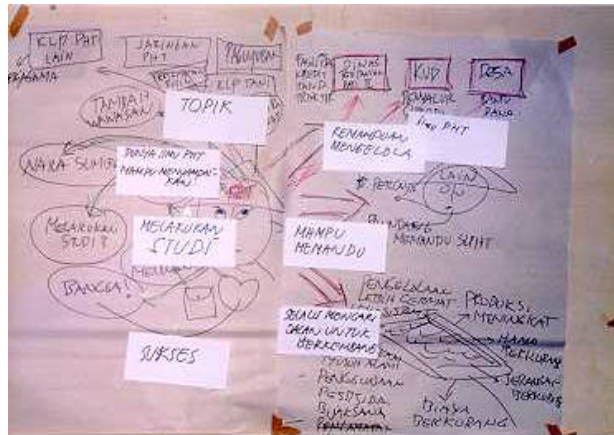
1. Divide the large group into small groups and ask each group to identify what they feel to be the major benefits of IPM activities. Ask each group to write on newsprint what they feel are specific examples of these benefits.
2. Have each group present its results. The results of each group's discussion, written on newsprint, should be attached to the wall and left there.
3. The facilitator should take several blank sheets of newsprint, attach them to the wall and begin to make a drawing with a farmer at the centre and drawings of the various benefits that have been identified displayed in a circle surrounding the central farmer. As the facilitator draws each benefit (use appropriate symbols for impact, for example, bags for rice yield), the participants should be asked to explain more about each benefit by identifying:



Drawing of benefits that have been identified by farmers.

- What. An example of the benefit if one has not been presented;
- Who, when, how, and where should be included for clarification;
- Why. Have the group identify the strengths of IPM alumni and the community that were generated by IPM training and alumni-led activities that caused this benefit to arise.

- The “strengths” or “causes” should be written on note cards and placed next to the drawing of the “benefit circle”. Where strengths arise in the context of more than one benefit, draw lines that connect these benefits. Thus there should be lines connecting the farmer (a symbol of all IPM alumni and the central or basic reason



for the rise of all benefits) and each benefit and lines connecting benefits that share similar strengths/causes.

Farmers analysis of strengths and causes .

- The facilitator can summarise the session by pointing out how different strengths or causes were connected to several different benefits. The strengths that are identified here can be used as the basis for planning future activities.

Indonesian Farmer IPM Trainers and IPM Field Trainers have developed several approaches to collecting data related to changes in farmers' practises. One approach seeks to improve recall by using a group activity. The first step is to conduct individual interviews with IPM alumni in the field to determine pre- and post-FFS practises. A drawing of the stages of plant development is often used to help with recall. The next step is to check this data through group analysis and discussion of interview results. The following is a participatory evaluation activity that was developed and used in West Java, Indonesia. Farmers wanted to know how they were benefiting by applying IPM principles, how they could improve their practises, and influence others to apply IPM.

Box 7.2

A Participatory Financial Analysis

An Indonesian IPM Field Leader working with a group of FFS alumni developed a participatory method for examining financial benefit from FFS training at the farm and group level. The Field Leader and the group wanted to follow-up their FFS with an activity to determine the benefits of applying IPM. The activity that they designed consisted of the following steps:

- The group attached large sheets of newsprint to the wall of their meeting place at the beginning of the planting season.
- They then drew several columns on the newsprint.
- The names of the group of 25 farmer alumni were on the far left side of the newsprint. Other columns were then identified for relevant background data

and farming practices that they thought would be changed because of their FFS experience. The following are the column headings developed by the group.

Name	Plot Area	Fertiliser Type	Vol	Pesticide Kind	Vol	Observation Why	Yield Results	Yield Tons
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- Based on what the group decided and wrote on the newsprint, each member made their own work sheet to keep track of their data on a weekly basis.
- The group, using a large piece of painted plywood, set up a “group” worksheet for summarising individual data. The data “board” was similar to individual worksheets.

Name	Plot	Fertiliser (Kg)			Pesticide			Observations	Yield
		N	P	K	Kind	Vol	Why	Total Number	Tons

- Each week each member summarised the data in the appropriate columns after his or her name.
- At the end of the season yields and costs were determined and benefits were examined.
- The group then evaluated what changes they had made and compared them with their previous experience. Discussion focused on how individuals benefited from the changes, and what the average benefit was per individual in the group. (During discussion the group constructed a “baseline” for purposes of comparison).

7.3 Frameworks for Analysis

Participatory evaluation of Community IPM activities has generated a wide variety of data. The participatory activities presented above hint at some the kinds of data that might be uncovered by an evaluation activity. Data will typically concern:

- Alumni organised IPM farmer networks, their organisation, and the processes they use for sharing information about IPM;
- Groups that alumni organised or re-activated, their activities, and the results of their activities;
- Alumni conducted research studies, the results, how results have been shared with other farmers, and how results have been shared;
- Alumni leadership and the processes enacted as part of group problem analysis and decision making;
- Profiles of IPM alumni, local government officials, and others;
- Events involving IPM alumni or organised by alumni, their goals, processes, and results;
- Emerging behaviour norms among alumni and others;

- Farming practise changes by alumni because of participation in an FFS.

Three different “frameworks” have proven to be useful in the analysis of data to look at the benefits of Community IPM at the individual and collective levels. These frameworks help in describing the extent to which farmers are successful in achieving their goals. The frameworks overlap somewhat and depending on the requirements of the evaluation study, some facets of the frameworks may be more relevant for a given study than others. The three frameworks look at:

- Farmers’ relationships with the fundamental aspects of their world. Farmers are engaged with their world through of many relationships that can be categorised and analysed by looking at the extent to which farmers have gained control over or improved their position within those relationships.
- The extent to which farmers have been able to achieve “social gains”. The extent to which farmers have been able to develop their potential can be labelled as the “social gains” that farmers have achieved because of Community IPM and FFS alumni activities. The analysis of social gains will consider several types of conditions which, taken together, provide the basis for farmers to make the best use of their skills, knowledge and resources.¹
- The changes in economic returns to farmers because of their improved farm management. Alumni can be expected to have made changes in their farm management because of participation in an FFS. These changes might lead to changes in the returns that alumni receive from their farming activities. The analysis of changes in economic returns that accrue to farmers makes use of what is referred to as the partial budget.

7.3.1 Relationships

Farmers are part of a web of relationships that constitute their world. Key relationships related to the analysis of the benefits of Community IPM at the village level include:

- Farmers and the agroecosystem
- Farmers and farming
- Farmers and money
- Farmers and policy
- Farmers and other people

Farmers and the Agroecosystem. Farmers may take decisions to achieve a relationship in which they have greater control. They may be bound by myth into a relationship that places them in a position where they are mainly reactive to changing conditions. On the other hand, they may be free actors, aware of the range of options that exist or their ability to create new options and the consequences of those options.

¹ See, *They Know How*, for more background on both the analysis of changes in relationships and social benefits.

Farmers and Farming. Farmers are in a relationship with their work. They may be in a position of being passive recipients of technological packages, accepting what they are told regarding their farming practises. Or farmers, because of their understanding of plant biology, agronomy, field ecology, and their ability to learn, test and adapt or reject inputs and ideas as they seek to employ economically and ecologically sustainable farming practises.

Farmers and Money. Farmers tend to require credit assistance at specific times of the year. Their access to credit and the terms of that credit form the basis of this relationship. Farmers may be required to accept an “in-kind” credit package consisting of in-puts that they don’t need or they can act to change the shape of the credit package. The extent to which farmers can generate and manage resources to support their development would also be part of this relationship.

Farmers and Policy. Local government policy, how officials implement policy and activities, and whether farmers can act to influence policy are important elements in this relationship. Officials can follow policy, ignore policy, or use it to constrain farmers’ freedom to make their own decisions as they manage their agroecosystems. Greater control over this relationship would include taking effective action against the misuse of policy or negotiating changes in in-appropriate policy. Being able to change village policy regarding the use of village development funds to provide support to IPM activities would indicate a greater control over this relationship.

Farmers and Other People. Farmers interact with a wide variety of people including other farmers, officials, their neighbours, and business people. Farmers’ attitudes toward these interactions are important. The changes in alumni attitudes as well as their changed status within these relationships form the basis for the analysis of this category of relationships.

An analysis of relationships should reveal whether and how these relationships have changed either on the individual level or the collective level because of Community IPM activities at the village level. Relevant issues to be considered given these relationships are:

- Has there been a shift in control or power because of IPM activities?
- Have farmers changed their understanding of the terms of the relationship (hence a change in one’s ability to control the relationship)?
- If there has been a change, what has been the resulting benefit or loss to farmers?

7.3.2 Social Gains

Another way of examining the benefits of Community IPM would be to determine the “social gains” that have accrued to alumni and their villages because of Community IPM. These benefits indicate an increased level of empowerment that is shared among farmers. Farmers who are empowered can take or

organise actions regarding their own, their families', and their communities' development. The conditions referred to here are several and grow out of the relationships that were discussed above.

- Access
- Leverage
- Choices
- Status
- Critical Reflection Capacity

Access. Access refers to the ability and capacity of farmers to obtain the resources they need on favourable terms. Access is gained when farmers' ability to obtain access on favourable terms to the resources they need is either newly established or enhanced. Access implies that farmers are able to identify, analyse, and design projects or actions to further enhance their opportunities. Further, farmers can "sell" these activities to those who control resources.

Leverage. This is farmers' bargaining strength to obtain the resources they need. Leverage is gained when farmers can successfully make claims on needed resources.

Choices. This concerns the ability of farmers to make decisions by choosing among available options. Positive benefits in this case would include both increased options as well as increased ability to take a critical decision regarding those options.

Status. Community IPM in a village should result in an improved self-image, increased self-confidence, and a positive sense of identity. On the other hand, Community IPM activities should result in local officials, non-members of IPM organisations, and others conferring an enhanced status upon these organisations and their members. For example, FFS alumni are sought out as members for village development committees because of, among other reasons, their analytical and planning skills.

Critical Thinking Capacity. The ability to accurately assess competing options (perhaps recommendations regarding agronomic practices) based on experience and knowledge. This might be a planning activity where farmers identify a problem, set priorities, assess options, and develop action plans.

7.3.3 The Partial Budget Analysis

Evaluation studies often try to determine what changes farmers have made in the farming practises because of participating in an FFS. Box 7.2 indicates that farmers are interested in knowing about these changes and their benefits. Farmers and trainers conducting participatory evaluation studies in Indonesia and Vietnam collected data on practise change to examine the benefit of applying IPM in their fields. The IPM principles "point to" the changes in farming

practises that alumni can be expected to make because of their participation in a Field School. The IPM principles include:

- Grow a healthy crop. The application of good agronomic practices including the use of high yielding varieties, appropriate planting distances, and appropriate fertilisation;
- The conservation of natural enemies. This suggests that there will be lowered rates of pesticide use;
- Conduct regular field observations. Alumni should be regularly observing their fields to collect data regarding the agroecosystem for decisions that in turn influence the above two issues.
- Farmers become IPM experts. Alumni should be able to make informed decisions based on the results of their observations.

Data related to practise change can be assigned costs and comparisons can be made between pre- and post-FFS practises related to economic benefits. The partial budget is a useful analytical tool in this context. Normally used as a planning tool, the partial budget examines changes made by farmers and the ensuing benefit of those changes on farmers' incomes. This is a straightforward analysis. The strength of the tool is that it provides a reliable indication of whether alumni benefit from the changes that they have employed.

Box 7.3

A Partial Budget Analysis

Note that data relates only to changes made in farming practices, in this case changes in fertilizer use and insecticide use. These are changes that have been made by IPM alumni because of training. Yields have also changed and it is assumed that the changes in yield relate directly to the changes made in farming practices. Because of changes in yields, returns to farmers have changed. Data are arrayed so that increases in costs or decreases in returns (negative benefits) due to changed practices can be compared with decreases in costs or increases in returns (positive benefits) due to changed practices.

Partial Budget Analysis: A pre- and post-training comparison of the financial status of 24 IPM alumni from Indramayu District, West Java, Indonesia.

	Urea (kg/ha)	TSP (kg/ha)	KCL (kg/ha)	ZA (kg/ha)	Insecticide Applications	Change In Costs	Yield (kg/ha)
Before	156.6	60.1	2.4	0	4		5450
After	198.5	87.2	61.5	5.7	0		6200
	(Rp/ha)	(Rp/ha)	(Rp/ha)	(Rp/ha)	(Rp/ha)	(Rp/ha)	Returns
Before	65,772	39,065	1,560	0	104,000		2,452,500
After	83,370	56,680	39,975	3,705	0		2,790,000
	(17,598)	(17,615)	(38,415)	(3,705)	104,000	26,667	337,500
					Returns to alumni =		364,167
					decisions		

The above data indicate that there were changes in fertiliser use after training. The changes in rates of fertiliser application resulted in increased costs of Rp. 77,333. Reductions of insecticide use resulted in savings of Rp. 104,000. There was thus an increased saving of Rp. 26,667. Increased yields resulted in increased returns of Rp. 337,500. Savings plus increased returns reveal an average increased return to the management decisions of FFS alumni in Indramayu of Rp. 364,167.

7.4 A Cautionary Note on “Participatory” Evaluation

There are many effective participatory evaluation methods. There are those practitioners who hold that the use of a given set of methods guarantees that a study will be “participatory”. The point is not to what degree farmers are “active” in a given study, rather the point is to what degree farmers control decisions and play a role in the different stages of an evaluation study, including control over the data collected in a study. The most participatory of methods can be used in an oppressive manner. The most formal of academic research methods can be used in an emancipatory manner.

There is a wide range of categories of participation. In a farmer training project for example, types of participation may range from farmers sitting in a room during a training (farmers are “participating” in a training) to farmers managing and implementing the training (farmers “own” the training). In participatory evaluation, the important question to ask is: who will “own” the data? If farmers collect data as part of a study, but outsiders “take over” the data for their own purposes, the study has not been very participatory.

In Community IPM participatory evaluation has not been simply a methodological issue. Instead of asking what is the best participatory method for collecting a given category of data, the question has been one of how to put farmers in control of a method that will help them to collect the data that they need to answer their questions. In the first case farmers would be assured of being involved in an evaluation activity, in the second case farmers would be assured of owning both the evaluation approach and the data that was collected.