PERCEPTIONS AND IMPACTS OF FRAM-A: A NORWEGIAN FARM BUSINESS DEVELOPMENT PROGRAMME

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ABSTRACT

The FRAM-A(gro) programme has been initiated to improve Norwegian farmers' business and strategic management skills. This paper reports on an evaluation of the early projects. Key findings are that the learning model combining three approaches (theory, group learning and on-farm activities) was successful, and that farmers were satisfied with the one-to-one consultancy.

Key words: Training programme, farm development, strategic management, consultancy, evaluation

INTRODUCTION

Economic results are often found to differ considerably between farmers operating under more or less similar production conditions, suggesting that the management factor and human resources are important with respect to financial performance (e.g., Rougoor et al., 1998). Each farm manager (called 'farmer' in the following) exhibits a certain level of managerial skill, which is a product of his or her personal characteristics and experiences. Can mature farmers' abilities in fact be altered? Giles and Stansfield (1990) and Nuthall (2001) have argued that appropriate formal training programmes can improve adult farmers' managerial skills. Recent empirical evidence is mixed. In Australia, Kilpatrick (2000) found training did change farm management practices and improved profitability, while Jackson-Smith et al. (2004) could not associate the training received by Wisconsin dairy farmers financial management training with evidence of improved financial performance.

In the past, most farmers had a strong production focus (doing things right). Farming success depended primarily on the ability to manage and develop an efficient operation. In the future successful farming will require a clear sense of what the farm is about and where it is headed. Efficiency is still required, but there will be a growing payoff to strategic decisions or doing the right thing (Miller et al., 1998; Olson, 2004). Correspondingly, findings of a survey of Devon farmers highlighted the perceived need for training, particularly in business management, among farming families (Errington and Nolan, 1997).

Training programmes in farm business management are then one way to increase farmers' management skills and decision-making abilities. The public Norwegian Industrial and Regional Development Fund (SND) thus initiated a management and strategy development programme, FRAM-A(gro), for farmers. In FRAM-A 'the farm as a firm, and the farmer as a firm manager' is stressed. The programme has some unique features and new approaches to learning, which are presented with details of the programme in the next section.

This paper reports on an evaluation of FRAM-A. The objectives are to examine participating farmers' and consultants' perceptions of the programme regarding reactions, learning, and changes in behaviour, together with an assessment of the resulting outcome (economic gains). Although focused on a Norwegian programme, the results should also provide relevant insights and lessons for wider dissemination.

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The FRAM-A programme

FRAM-A is a management and strategy development programme for farmers. SND has developed and manages the programme. The origin of FRAM-A is the general FRAM-programmes introduced in 1992, and designed for non-agricultural small and medium-sized enterprises (from one to thirty employees). Each year some 300 firms complete a general FRAM-programme, organised in regional project groups of up to 12 firms. The programme period lasts at least 1.5 years.

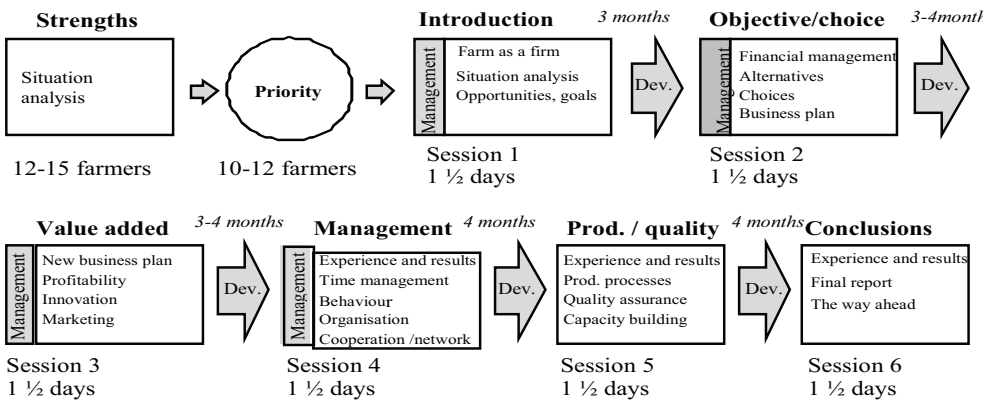
The first FRAM-A project groups were launched in seven counties in 2000. Three projects were completed at the time of this evaluation. Since these have been completed, many new projects have been initiated. The programme costs are around NOK 90,000 per farm (£ 1 □ NOK 12.30), the farmer's share of these costs is NOK 10,000, with the balance paid by SND. Farmers have to pay accommodation, meals and travelling expenses themselves. Consultants' salaries are the programme's major cost.

The main objectives of FRAM-A are the same as the FRAM programme. These objectives can be grouped into quantitative and qualitative aspects. The quantitative aim is to improve the farm's financial result, clearly specified as an 'increased profit equal to 5% of the farm's gross output last year'. The four qualitative aims are, (1) positioning the farm business in order to achieve the profit objective and gain sustained competitive advantage; (2) developing management skills; (3) defining and developing unique resources and core competencies; and (4) developing cooperation, network and a 'farm board'. The farm board should include the farmer, his/her family, employees, and one or several external people. The qualitative objectives may appear to be quite general but they faithfully represent the declared aims of the programme.

The potential programme participants need to be interested in changing and improving their farm business, and in developing themselves. Other selection criteria include a track record of healthy financial performance and a larger than average farm size. Accordingly, FRAM-A participants are not a random sample of the farmer population.

FRAM-A's process model shows the activities farmers are engaged in through a programme period of between 1.5 and 2 years (Figure 1). The programme begins with a situation analysis designed to increase the farmer's awareness of his situation and to start to identify potential areas of improvement and for development. Some farmers leave the programme at this stage.

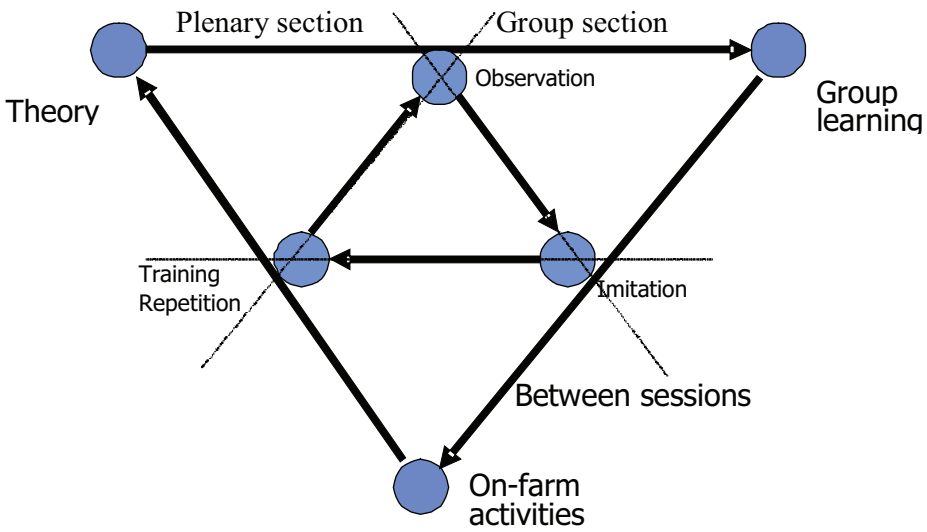
Figure 1. FRAM-A's process model.



Those remaining usually form a group of 10-12 farmers who between them farm a range of enterprises. The next step is to evaluate possible options for change. The chosen options are set-out in each farmer's individual farm business plan. In total, farmers attend six sessions covering the subjects shown in Figure 1. Course coordinators, consultants, and other experts present lectures at these sessions. The sessions also allow farmers to exchange ideas and experiences through group work, and some social events are included.

During the programme, farmers develop their human and farm resources in consultation with their allocated farm consultant. Each farmer is assigned about 60 hours of one-to-one consultancy, which takes place throughout the programme. They work together on the situation analysis, identification of opportunities and goals, plans of action and to develop selected projects. Farmers use the theory and experiences from the group learning on their own farm. The personal consultant aims to create a change-driven process, asks critical questions, and develops a trust-based relationship. Figure 2 summarises FRAM-A's learning model; it uses three main learning approaches; theory (structured education and training), group learning and on-farm activities.

Figure 2. The learning model.



A consultant is generally assigned 2-3 farmers, i.e., 4-6 consultants per project group. Consultants are recruited from two professions; consultants with experience in business development and processes, and consultants with experience with farm business extension work. Often, agricultural consultants lack skills in business development and processes while general business consultants are seldom familiar with the uniqueness associated with farming and farm management.

FRAM-A's approach is to facilitate managerial changes through learning and development. This is a proactive way of encouraging change where farmers need to pay attention to the development of their business management skills, resources and motivation.

A number of FRAM-A's features distinguish the programme from more traditional extension services and training initiatives, at least in Norway. FRAM-A is a process-oriented programme operating at the whole-farm scale, aimed at developing both the farm and their human resources.

Strategic planning and networking are stressed and the one-to-one consultancy plays an important role. While some parallels are found in other training programmes, the combination and extent of consultancy involvement underpinning FRAM-A is, in the authors' opinion, unique.

EVALUATION METHODS AND DATA

Kirkpatrick's (1998) four-level model for evaluating training programmes was used to evaluate the programme. Figure 3 shows the four levels (reactions, learning, behaviour, and results) and the variables that need to be measured at each level. Kirkpatrick's model goes beyond just using simple reaction questionnaires ('happiness sheets') to rate training programmes. This is because reaction levels are often weakly correlated with higher levels and, therefore, should be handled independently from the higher one's (Alliger and Janak, 1989); the higher the level, the more important it is for judging the success of the programme. However, the highest levels are the more complex to evaluate. In addition, when the qualitative objectives of the programme were agreed no clearly identifiable and measurable criteria were set out, making it harder to assess if these objectives had been met.

As a result, a mixture of quantitative and qualitative methods was used to examine the four levels. First, postal questionnaires were conducted among FRAM-A participants (farmers) and consultants. The questionnaires included statements related to perceptions of: (1) the programme and its content; (2) changes in knowledge, attitudes, skills, etc.; and (3) changes in practice, and development of resources and network. Most questions were of the closed type in the form of Likert-type scales ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaires were sent out in October 2002 to all 94 farmers and 35 consultants in the first eight project groups. In total, 53 farmers (56%) and 26 (74%) consultants responded. The questionnaires are documented in Vanebo et al. (2003).

Figure 3. Kirkpatrick's (1998) four-level model for evaluating training programmes.

Evaluation of	*Question*
1. Reaction	What were farmers' and consultants' responses to the programme?
2. Learning	What did the farmers learn (knowledge, skills attitudes, etc.)?
3. Behaviour	To what extent had new skills and resources been used in practice?
4. Resulting outcomes	To what extent had FRAM-A benefited farmers, had farmers improved their financial performance?

All consultants estimated the change in their clients' financial performance through the programme period (objective 1 of FRAM-A), and reported these estimates to SND headquarter. This research was granted access to the consultants' economic reports for all of the farms in the first three groups that completed the programme.

After examining the questionnaires and these economic reports, we prepared semi-structured questionnaires to guide our interviews. The interviews addressed the same subjects and themes as the questionnaire survey, and, in addition, economic issues were explored. We conducted five focus group interviews with 3 to 5 randomly chosen farmers from five projects and personal, face-to-face interviews with 12 randomly chosen consultants from the

same projects in November and December, 2002. Interviews with farmers were conducted in small groups to provide both in-depth discussion and opportunities for debating contrasting viewpoints. The interviews varied in length from 1-3 hours. The interview guides are documented in Vanebo et al. (2003). Considerable insights into the attitudes of the interviewees and their perceptions of various aspects of the FRAM-A programme, including the resulting economic outcomes, were elicited through these qualitative interviews.

RESULTS AND DISCUSSION

Reactions

Some questions in the surveys were related to responses to the programme. Farmers and consultants were asked to score each statement on a Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Key findings are presented in Table 1.

Table 1. Farmers' and consultants' responses to the programme. (Scale: 1 = strongly disagree, 5 = strongly agree.)

	Farmers		Consultants	
	Mean	SD[1]	Mean	SD[1]
I am very satisfied with the FRAM-A programme	3.83	0.92	3.92	0.89
I/farmers found FRAM-A very beneficial in my/their farm business	3.81	0.99	4.35	0.56
My/farmers motivation to develop new skills was very good during the FRAM-A programme	4.19	0.90	4.28	0.61
I am very satisfied with the sessions	4.02	0.66	4.00	0.71
I found the course literature very useful	2.62	1.15	2.77	1.34
I am very satisfied with my consultant	4.31	0.93	-	-
Farmers were very interested and active in the programme	-	-	4.42	0.86

[1] Standard deviation

The survey indicated that both farmers and consultants found the programme interesting and beneficial. Farmers were highly motivated to develop new business management skills and found the sessions useful. In the focus groups, farmers were critical of some lectures presented during the programme period because they were not orientated towards the particular activities and decision-making environment found on farms and in farming. The opportunity to exchange experiences with other farmers was considered as most beneficial aspect of this phase. Previous studies have also pointed out farmers' enthusiasm for business-related farmer discussion groups (e.g., Errington and Nolan, 1997; Kilpatrick, 2000).

The course literature scored low in the survey. The interviews revealed that a slightly modified version of the general, non-agricultural course material had been used. The literature was perceived as poorly adapted to farming, and it was too voluminous. Very few farmers had used the written course material; previous studies had also found that reading was not the preferred learning method of many farmers (Black, 2000).

Most farmers were satisfied with their consultant, and vice versa. In focus groups, some farmers stated that the consultant was the most important part of the FRAM-A programme. Trust-based consultant-farmer relationships were successfully built. Interestingly, the consultants' qualifications and attributes distinguished FRAM-A from other agricultural advisory services and training initiatives. Farmers assessed their consultants' knowledge and experience in guiding processes as the most important influence, but farmers also expected their consultant to understand the cultural and social elements of the farming sector as well as being innovative. However, not all consultants were appropriately trained. Farmers proposed training consultants to develop their abilities, which reflect the positive experiences found in Denmark with initiatives to train consultants' to develop their strategic awareness and business competency (Lund

and Larsen, 2002).

FRAM-A emphasises the profit-increasing goal, but farmers are rarely motivated by economic goals alone. Some farmers and consultants commented on the omission of non-economic issues as objectives. Cole and McGuinness (2001) have argued that consideration of social and environmental, as well as the economic aspects, of the farm business could increase the benefits of a farm business programme.

Table 2. Learning results in surveys of farmers and consultants. (Scale: 1 = strongly disagree, 5 = strongly agree.)

	Farmers		Consultants	
	Mean	SD[1]	Mean	SD[1]
Knowledge				
FRAM-A has given me/farmers much useful knowledge in:				
Economics and financial management	3.53	0.99	4.31	0.93
Strategy and business planning	4.04	0.78	4.58	0.76
Business administration	3.94	0.70	3.85	0.73
Marketing	3.19	1.08	3.50	0.91
Network development and cooperation	3.58	1.03	4.15	0.73
Production, quality assurance	3.23	1.10	2.96	0.87
Skills				
I/farmers have developed my/their skills considerably through the FRAM-A process in:				
Planning	3.83	0.98	4.27	0.60
Time management	3.70	0.85	4.15	0.73
Cooperation and communication	3.60	0.87	4.12	0.67
Attitudes				
I/farmers have become much more market oriented	3.11	1.10	4.42	0.50
I/farmers have become much more profit oriented	3.91	0.95	4.38	0.70
I/farmers have become more aware of external conditions affecting the farm operation	3.49	1.03	4.27	0.72
I/farmers have become more aware of utilising the farm's opportunities and resources	3.70	1.03	4.50	0.58
I/farmers have become more aware of where I/they want the farm to be in the future	4.06	0.99	4.65	0.56
Change capacity				
My/farmers barriers to make changes have been reduced	3.23	1.07	4.19	0.90
FRAM-A has strongly motivated me/farmers to make changes in the farm business	3.57	1.07	4.27	0.83
Self-development				
I/farmers have become much more aware of what I/they want to do, can do and should do	4.00	0.81	4.46	0.65
I/farmers have become more creative and have discovered new opportunities	3.32	1.00	4.15	0.61
I/farmers have become a better decision-maker	3.36	0.96	3.77	0.76
I/farmers have become better to implement planned projects	3.62	0.97	4.58	0.72

[1] Standard deviation

Learning

Through the combination of theory, group learning and on-farm activities (Figure 2), farmers were challenged to develop their knowledge, skills and attitudes. Their 'change capacity' (ability and will to make changes in the farm management practice) and their ability to self-develop, should have improved. Respondents in the survey were asked to score each learning statement, Table 2 summarises the important learning outcomes. Notice that the consultants' perceptions of farmers' learning results (and changes in behaviour which are discussed in the next sub-section) were more positive than the farmers' own perceptions. The differences may reflect a tendency for people to be unaware of their own improvements, in addition to the consultants' presumed self-interest in promoting the programme and their role in the programme.

The survey results indicate that farmers had increased their knowledge, particularly in strat-

egy and business planning. However, the focus group discussions revealed that farmers were more sceptical of these outcomes. Some expressed having gained only a limited amount of new knowledge, but that the FRAM-A programme had rather inspired and motivated them to start using their latent knowledge more. These observations suggest that farmers had become more conscious about their knowledge and about actively using their knowledge.

The survey suggests that farmers had developed their skills in planning, time management and cooperation/communication. In the qualitative interviews we asked for information about farmers' skill developments, but little was forthcoming.

Some farmers' attitudes seemed to have changed during the programme period. "Increased awareness of where they wanted the farm to be in the future" was scored the highest by both farmers and consultants. "Profit orientation" had the second highest score by farmers. Consultants assumed farmers had become much more market oriented while many farmers perceived small, if any, change in this area. In focus groups however farmers revealed that they had become more demanding as customers and had increased their self-confidence. As one interviewee put it: "It depends on self-confidence, pure self-confidence, believe in what you are doing, make a decision and go for it." In the survey, farmers perceived FRAM-A had only a modest effect on their barriers and motivations to make changes ('change capacity'). However, the consultants' assessments of FRAM-A were much more positive.

Marnburg (2000) proposed that the self-developing small firm has the ability to develop innovative thoughts and to consider new opportunities, and that the self-developing firm should not view itself merely as a product of its surroundings. Developing strategies for allowing firm's to influence their own surroundings are equally important. The survey indicated that the highest perceived impact of FRAM-A was on farmers' awareness of what they wanted, could and should do. Skills relating to the implementation phase had improved. However, farmers perceived that FRAM-A had only a slightly positive effect on creativity and decision-making skills. The interviews revealed the role of sessions as a time for the exchange of experiences and ideas, motivation and for innovative thoughts. A mixture of

Table 3. Perceptions of farmers' changes in behaviour. (Scale: 1 = strongly disagree, 5 = strongly agree.)

	Farmers		Consultants	
	Mean	SD[1]	Mean	SD[1]
Change in practice				
I/farmers have started management accounting, and/or use accounting systems more actively in decision making	3.09	1.27	3.92	0.89
I/farmers have developed a business plan	3.91	1.21	4.62	0.57
I/farmers have contacted suppliers and/or customers to get better deals	3.42	1.42	4.35	0.56
I/farmers manage the farms, more than before FRAM-A, out of profitability concerns	3.74	0.98	4.08	0.74
I/farmers have implemented many projects through FRAM-A to increase profitability	3.79	1.06	4.62	0.64
Developing unique resources				
I/farmers have identified my/their strengths and unique resources	3.92	1.07	4.50	0.58
I/farmers have decided to phase out some enterprises or production systems	3.32	1.46	4.42	0.81
I/farmers have identified enterprises or production systems that should receive more focus	3.77	1.25	4.35	0.63
Network development				
I/farmers have developed new contacts	3.51	1.34	4.15	0.88
I/farmers have made more use of my/their existing network	3.79	1.15	4.38	0.75
I/farmers have established a farm board	2.57	1.60	3.65	0.98

[1] Standard deviation

the sessions and discussions with consultants, left farmers more motivated and energised to develop their farm businesses.

Overall, farmers' resources and 'change capacity' were developed. They had become more aware of their situation as a farmer and of where they wanted the farm to be in the future. Self-development abilities had improved. Whether the new managements skills and abilities changed behaviour is the next question addressed.

Behaviour

Perceptions of changes in behaviour were divided into three groups in the questionnaire: change in practice, developing unique resources, and network development. Some findings are presented in Table 3.

FRAM-A stresses that budgeting and management accounting are important to the farm's system of financial control. In spite of this, relatively few farmers had intensified their budgeting and accounting activities. This observation could be related to Hardaker and Anderson's (1981) suggestion that farm-recording systems are doomed to failure because the products do not meet the needs of most farmers because of the nature of their decision making processes.

Almost all farmers had completed a business plan together with their consultant (as required by the programme). One outcome was that some farmers had negotiated better business deals; in the focus groups, farmers commented that they had become tougher negotiators and traders.

One of FRAM-A's main messages is the need for 'economic thinking'. Farmers' average score of 3.74 on profitability suggests that FRAM-A had some success in this respect. Moreover, in focus groups farmers argued that their understanding and use of principles in managerial economics had improved, but more training in financial management was still needed. Many farmers had implemented new projects to increase profitability, but the interviews and focus groups revealed that few farmers had actually started new enterprises or moved into a differentiated product strategy; most had decided to add value to existing activities.

The FRAM-A programme expects farmers to define and develop their unique and valuable resources so as to gain a sustained competitive advantage. According to the surveys, many farmers had identified their strengths and weaknesses and surveyed the external business environment. These findings agreed with the responses in the focus groups, as a farmer illustrated: "One of the most important lessons from FRAM-A is the competitive advantage we have, and what we can do better than most others. Now I am sure where to invest and allocate my resources". Many farmers seemed to have developed a clear vision of where the farm operation was headed and were expected to have identified business strategies to gain competitive advantages.

One of the FRAM-A programmes aims was to develop networks, cooperation and a farm board. Relatively few farmers claimed to have developed many new contacts, but they had become more aware of their existing networks. Consultants were more positive. In focus groups farmers expanded on their more critical and demanding view of the traditional advisory service. A typical reaction was: "We have become more critical to agriculture's traditional advisory service. We want to acquire knowledge from those who have something of value to offer."

Few farmers found the establishment of a farm board useful. In focus groups, farmers commented that setting-up of an internal, formalised farm board was a waste of time and too bureaucratic, because the farmer and perhaps the spouse were the only people involved in the farm operation. Olson (2004:354) pointed out that a board of external advisors could be a valuable management tool in farms of any size. These boards could, in theory, help farmers understand and prepare for the increased complexity involved in running a farm business. Perhaps it would be more appropriate to establish a board of advisors, instead of a more internally-focused farm board.

To summarize, farmers' immediate behaviour were perceived to have changed. Farmers should however bear in mind that, for instance, one-off strategic planning efforts seldom create sustained success (Miller et al., 1998). Rather, strategic planning is a process, which needs to be continuously revisited. Whether the behavioural changes are merely temporary or will be permanent is unknown, and this will need to be evaluated at some time in the future.

RESULTING OUTCOMES

The resulting outcome of FRAM-A should be increased farm profit. A quantitative target was specified, that of achieving an 'increased profit equal to 5% of the farm's gross output in the previous year'. Whilst the farmer and the consultant jointly planned the profit-improving activities, it was the consultants' responsibility to prepare estimates of the economic impacts of these activities in the form of a budget. Changes in the profit and loss account's net farm income from the year of the situation analysis and two years later were calculated and used to indicate whether the profit target had been achieved. (Net farm income is the return to all farm assets, unpaid labour and management contributed by the family/operator to the farm business.)

Reports from 31 farms in the three completed programmes showed an average profit improvement of NOK 198,000 per farm. Given that their average profit target was an increase of NOK 69,000 (i.e. average farm gross output of NOK 1,380,000), the results suggested high gains relative to programme costs. However, estimating the future change in financial performance and then attributing these changes to specific training programmes are both inherently difficult tasks (Marsh and Pannell, 2000). Clearly a wide range of factors, only one of which is the training programme will influence changes in financial performance. To show improvement over past results, any trend analysis of farm performance must take into account year-to-year changes in weather, prices, and many other random variables (Kay and Edwards, 1999: p. 338). In the completed FRAM-A programmes, improvements in the financial performance from 1999 to 2001 were recorded. The measured profit improvements were assisted by higher output prices in 2001 compared with the weak markets experienced in 1999. No adjustments were made in the calculation to correct for these changes, which are outside the control of individual managers. Moreover, some consultants included in their calculations the higher sums earned from off-farm income as a part of the farm's profit improvement.

Net farm income calculates the return to more than one input. Deductions for unpaid labour input and returns to farm assets were not taken into account in calculating the FRAM-A definition of profit. As a result of the programme, it was quite common to find that farms expanded and employed more unpaid labour and made additional investments. In focus groups, farmers were very critical of the profit measures used to assess the programme, and some consultants expressed similar views. Overall, there was a consensus that the farm business analyses inadequately measured the financial impacts of the programme, and the estimates that were produced were likely to have overestimated the real financial impact.

Farmers however found FRAM-A's emphasis on economics and financial performance attractive. They mentioned a large number of activities already implemented that are expected to increase farm income. FRAM-A should also improve longer-term farm positioning, but to identify impacts on long-term profitability and viability, an evaluation period of 5-15 years would be necessary.

Programme costs are high, and this may raise concerns relating to the justifications for spending public and private funds on the programme. Consultants' fees are the programmes major expenditure, therefore it is important to ensure efficient use of appropriate consultants. Moreover, the one-to-one consultancy in FRAM-A involves considerable elements of private

benefits to farmers (a private good), which suggests that the costs could be borne more heavily by the recipients. However, farmers and consultants were united in their scepticism of this development, fearing that any increase in the user's fee above NOK 15,000 would significantly reduce the programmes benefits, because participants' would be uncertain as to benefits they would derive from the programme at its outset.

CONCLUSIONS

FRAM-A is a process-oriented whole-farm approach to delivering farm business advises in Norway. It is designed to focus on business development, strategic planning and developing networks. The outcome of the FRAM-A pilot groups has been assessed using Kirkpatrick's four-level model for evaluating training programmes. When the qualitative objectives of the programme were set-out they lacked any clearly identifiable criteria that could be measured, thus making it harder to assess if those objectives had been met. A mixture of methods (questionnaire survey, focus group interviews, personal interviews and document analysis) was employed to judge the success of FRAM-A. In summary, the consultants' perceptions of the programme were generally more positive than farmers' perceptions.

A number of features in FRAM-A that appeared to benefit farmers were identified. The learning model, combining three approaches (theory, group learning and on-farm activities), was well received and considered successful. Farmers were satisfied with the one-to-one consultancy. The process approach distinguished FRAM-A from the traditional products provided by the extension service. FRAM-A succeeded in linking participating farmers with one another, and in widening their network. Farmers' knowledge and skills in strategy and business planning improved, their willingness to make changes to their farm business, and their self-development, were facilitated. Unique farm and farmer resources were identified. Many farmers seemed to have developed a clearer vision of where the farm operation was heading and had identified business strategies to gain competitive advantages.

Some initiatives in FRAM-A were less successful. Few farmers had implemented new routines in budgeting and financial control; improvements in the written course material were required and farmers did not find the establishment of an internal formalised farm board useful. The failures were somewhat related to FRAM-A's lack of adjustment of the teaching materials to accommodate the production and business characteristics of farming, based as it is on weather related uncertainties and biological and human complexities.

Consultants' profit estimates suggested very high programme gains, but the methodology and measures used were inadequate. For example, no adjustments were made to correct for the impact of changes in variables outside managerial control (e.g. improvements in market prices). Farmers, however, informed us of the many activities they have initiated as a result of the programme, and which they expect will increase their farm incomes. A further examination of the relationship between FRAM-A's development of managerial and strategic skills, and the evaluation of how this impacts on long-term profitability and viability is recommended.

The generally positive perceptions and impacts suggest that FRAM-A contains a high proportion of 'good-practice' elements, and that it is a useful instrument for improving farmers' management skills. All participants regarded the one-to-one consultancy as one of the most powerful elements of the programme; at the same time consultants' salaries are the major programme cost. Efficient use of the consultancy is clearly an important concern in order to justify the costs of the programme to the public purse.

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