Keynote: Conservation is for Business - Self-Help Groups in Kenya

R J Cheatle*, T F Shaxson

ABSTRACT

Over the last six years, more than 2000 resource-poor farm families in western and central Kenya have achieved significant livelihood improvements, with assistance from the small NGO 'Association for Better Land Husbandry'. This has followed from a twinned focus on better land husbandry and marketing. The process started from a realistic basis of 'near-nil investment' for improvements in vegetable production and bee-keeping, using little more than the very limited resources of land, labour and cash available to these families. Interest in improved bee-keeping has resulted in increased production of honey and in local initiatives to protect its vegetational sources within the Kakamega Forest. Physical improvement to small intensively managed areas of land near people's houses have been widely achieved by the enthusiastic adoption of composted double-dug beds as a means of raising yields and increasing crop diversity. Welcomed large benefits cited by samples of small-farm families across the high-, medium-, and low-potential areas of Kenya include: (a) significant increases in self-sufficiency in maize; (b) markedly reduced experience of hunger between successive harvests; (c) greater resilience of the land/crop systems in the face of climatic drought; (d) notable increase in sales of vegetables by those who formerly had to buy them; (e) improvements in diet, in terms of both quantity and quality, with resulting better health of children; (f) generation of cash income, which offers choice of investment in domestic and farm requirements. Other observations include (g) the spread of the composted beds beyond the houses and into maize fields; (h) much spontaneous adoption and continuation of the methods via farmer-to-farmer training, research, and networking within and between Self-Help Groups. In contrast with many other rural development efforts, ABLH has concurrently been promoting "Conservation is for Business", an approach that aims to improve livelihoods simultaneously with profitable practices that rehabilitate and maintain environmental qualities. Added to conservation-effectiveness production practices are emphases on (a) training of members of Self-Help Groups in good business practice; (b) well-prioritized actions towards higher value crops; (c) adding value by processing and sale of SHGs’ outputs produced and graded to a recognized ‘Conservations Supreme’ standard – by their own recent organizations. The beneficial effects can be seen as a major contribution to shifting the development process into a business orientation in Kenya and as a role model for conservation-based improvements to livelihoods in many other lesser-developed countries.

INTRODUCTION

The Poverty Context

In 1994, of the world’s 5.6 billion people, some 4.3 billion were of the Developing Countries and of these more than 1.3 billion people were living on less than US$1 per day (U.K. Government, 1997). Of these, more than 221 million people inhabit sub-Saharan Africa, where more than half of them have a life-expectancy of less than 40 years, and 28 million of them are malnourished children under the age of 5 years.

In 1998, the population of Kenya was estimated at over 21 million, growing at a rate of around 3 percent per annum, or by more than 1700 persons per day. About 70 percent of the population is rural, and many of them exist with less than US$1 per day. In the Western Districts, this is about 60 percent, and in the Midlands about 30 percent of the people.

Factors contributing to rural poverty in Kenya include: long-continuing decline in soil fertility following on continuous cultivation and accelerated soil erosion under aggressive and unpredictable tropical climatic conditions; sparse poorly-functioning infrastructure and Government services in rural areas; men moving away from farms to seek income from other sources; small farmers commonly considered noncredit worthy; no experience by field staff of Government or NGO services in helping farmers generate more cash. But how can millions of people be assisted to rise out of poverty without reliance on hand-outs?

RELIEF OF RURAL POVERTY

Concept

Because conventional approaches appear to have had little self-spreading or lasting effect, a small NGO, the Association for Better Land Husbandry, whose Chief Executive lives in Kenya, has elaborated, and assisted small-farm families to put into practice, an unconventional vision of how such rural poverty may be addressed. It is based on the belief that there cannot be effective stewardship of the land without relieving poverty, and that poverty cannot be relieved in a sustainable manner without business activity. From this derives the slogan in Kenya: ‘Conservation is for Business’. It envisages a vertically-integrated approach
linking conservation effective farming practices to the marketplace (Cheatle, Nekesa, & Nandwa, 1996), to go beyond increased food security alone and to put more cash into farm families' pockets. However desirable environmental protection and conservation farming may be, farmers will justifiably continue to ask: "What's in it for me?" They cannot 'sell into poverty' in places where people are without spare cash, so they need markets for what will sell, and among people who are prepared to pay for high-value, high-margin produce, and thus provide potentials for profit by farmers. Profits must be generated not only to provide for livelihood requirements and re-investment in farms but also to pay for services which are not provided free of charge by rural agencies such as Government. The approach aims at assisting resource poor farm families in the conservation and improvement of their livelihoods as well as of their soils. But how can resource poor farmers begin, with no money?

Evolution - Phase I

After a season's positive experiences with four Self-Help Groups (SHGs) around the Kakamega Forest, in 1994 collaboration began with more groups, and by 1995 the number of SHGs had risen to 83, each with about 25 members, within three Core Target Areas (CTAs) in western Kenya (Kakamega, Vihiga and Busia) and one CTA (Kerugoya) in the Midlands. From the outset families were encouraged and trained to make better use of some key resources already available to them: rainwater; organic materials, organisms, and processes; and the energy of family labour. The entry points where this outlook was applied were (a) improved homestead gardens using one or more 7m x 1.5 in double-dug (deep) composted beds for more secure production of vegetables, and (b) improvements in local methods of bee-keeping and honey production. These activities were, and remain, initial actions for building rapport between farmers and field staff, and for farmers to develop self-confidence. The actions represent virtually cost-free measures whose benefits were judged by farmers to merit the extra labour involved, and provide a near-nil-investment start in generating cash for moving into higher production using more advanced technology -- including where necessary the use of purchased inputs -- and with increased profitability. Photo I shows crops on a double-dug composted bed in the middle of a drought.

By mid-1996, three years from the small start, remarkable results were being achieved by many hundreds of farmers attended by a number of NGOs, ABLH among them, as recorded by a sample survey across the high-, medium-, and low-potential areas of Kenya.

The impact of conservation farming on adopters is easily the most important of all the positive experiences revealed by this survey. If, in 1992, a planning team had decided that the targets for their small farmer rural development project were, by 1996:

- to boost self-sufficiency in maize from 22% to 48% of farmers
- to reduce experience of hunger from 57% to 24% of farmers
- to reduce the proportion of farmers buying vegetables from 85 % to 11% and increase the number selling to 77%
- They would have been dismissed as utopian, however, it has happened

Almost all adopters are hugely satisfied with the improvement in diet that has resulted from the abundance of vegetables that is the most obvious result of the adoption of conservation farming.

Adopters are well aware that the new diet is nutritionally better balanced than the old one and that this is important in relation to health, especially of children. This result is of particular significance to the NGOs, most of whom saw the elimination of child malnutrition, and especially kwashiorkor, as a prime reason for promoting conservation farming in the first place.

Many adopters are very satisfied with the way that the new cash income from the sale of vegetables not only allows purchases of maize and other foods but also essential household needs such as school fees. Gross incomes of 1400-3000 / p.a. are possible from one well-made double-dug bed [at date of writing, ca. 85 Kenya shillings = £1 sterling].

A surprising finding is the extent to which adopters have extended organic practices, notably compost, beyond the kitchen garden to the maize fields, even in tea growing areas. This refutes the commonly held assumption that conservation farming is exclusively concerned with vegetables in the kitchen garden and explains the improvement in maize self-sufficiency.

It is immensely encouraging to find that any given group of 100 adopters will nearly double to 185 or so in just three years (despite dropouts) because of between farm diffusion. Even more promising is the finding that most of this increase will be due to spontaneous adoption by neighbors, who are impressed by what they see: the results of conservation farming on the ground. This is clear proof of a momentum for continued expansion in the future.
What so impresses neighbors and the adopters themselves is the profusion of healthy green vegetables growing on composted double-dug beds. These two core techniques of the conservation farming ‘package’ are hugely popular (over 80% adopting), instilling great pride in their owners.

The existence of strong self-help groups has been a positive factor, boosting adoption and morale. Strength is seen in:

- Group land that allows demonstration of techniques and sharing of knowledge, as well as providing group income.
- Group work teams who help members in the more laborious conservation farming techniques.
- Strong group finances, which have allowed investment in-group facilities, which can support conservation farming.
- Group-related Merry-Go-Round [revolving fund for savings and loans] has stimulated private saving that often is invested in conservation farming (e.g. goats for manure).
- Group social co-operation acts as a welfare system, increases the popularity of groups, and thereby influences conservation farming.

The quality of the teaching by the NGOs was universally acknowledged as good by members of groups.

Follow-up by some NGOs has been excellent. This is particularly the case where they have a permanent presence on the ground within easy reach of the farmers.

Field days organized by NGOs are an effective means of attracting potential adopters (Hamilton, 1997).

The report’s indications of constraints are also revealing:

- A number of problems were identified which revealed constraints holding back the successful spread of conservation farming:
  - The number of drop-outs may be 20% in three years and result from a variety of causes including:
    - disagreements over profit distribution within groups
    - clashes with local administration and the Ministry of Agriculture [particularly regarding nature of messages about conservation farming]
    - poor follow-up by NGOs.
  - The problem of poor follow-up: small NGOs with fixed bases close to the villages find follow-up easiest. Too many farmers feel isolated after teaching and morale suffers so that the sustainability of conservation farming is imperiled. They need ongoing access to expert advice.
  - The problem of unpopular techniques: Liquid Manure and Natural Pesticides have roughly 50% adoption rates; all others below 20%. Equipment [notably large containers] is the problem with Liquid Manure which otherwise is highly effective. Natural pesticides are popular for vegetables but inhibits [other related recommendations e.g.] 9 Maize Seeds in Hole, Trenches and Baskets.
  - The problem of holistic planning: Planning should be for the whole system. [But] Farmers argue that there is no point in teaching conservation farming if there is: no water e.g. in Machakos; no markets; no check to land fragmentation (Cheatle, 1996).

Some farmers were so enthusiastic to spread the techniques to others that they requested training to become trainers of other farmers, which has led to much autonomous spread; farmers’ own and adaptive research has become more prevalent; and the use of techniques of Participatory Rural Appraisal (PRA) and Participatory Action Planning (PAP) enable farmers’ concerns and requirements to be articulated. In these, four themes have always emerged:

- A perception of soil infertility and the need to counteract that by low-cost methods (mineral fertilizers are invariably declared to be unaffordable);
- Knowledge of the constraints placed upon crop production by irregular rainfall;
- Identification of a set of high-value business opportunities, plus market intelligence about what is demanded and what prices paid (these concerns are given higher priority than food security issues);
- A cry for help to market products.

Conservation of the Kakamega native forest has improved because of improvements in bee keeping. By comparison, with poor-quality pale-colored honey from hives set amid maize-fields, that from hives near the forest is of darker color, of better keeping-quality, and attracts a better price. Beekeepers associated this with the diversity of flowering forbs, shrubs and trees in the forest, and, in order to safeguard their nectar supplies, have taken up tenancies from the Forest Department and Kenya Wildlife Service to preserve patches of forest in which to place the hives. Thus, defense of the forest against lopping and chopping by others has followed from beekeepers’ commercial interests.

**Evolution - Phase II**

Soon after the start, it became clear that local village-level markets for vegetables quickly reached saturation point, and that further progress in cash generation would need more-specific attention to marketing. A specific framework to address this has been developed ab initio over the past four years. It has a number of components:

- Market research, both within and outside Kenya, to identify not only the nature and location of possible markets but also the commercial channels by which to reach them;
- Encouragement to produce crops and derived products to certified standards of quality for national and international acceptance, and to give a price advantage: two standards are being defined and formalized. The ‘Organic’ standard (with the strictest but most difficult criteria) is being developed with collaboration of the UK Soil Association. The ‘Conservation Supreme’ standard is of equivalent rigor but sets criteria that is more readily achievable by the majority of small farmers. The CS standard includes best current practices in Integrated Pest Management and Integrated Crop Management and has, like the Organic standard, ethical and environmental connotations which Kenyans have favored, as revealed during ABLH’s market researches and consumer surveys in large and small cities of the country. The CS standard is also a step on the way for a farmer who wishes
eventually to reach the Organic standard;

- For development of competitive businesses through bulk selling and buying, the aggregation of keen SHGs into Farmers Action Associations (FAAs) of around 200 families, or about 10 SHGs each. Some are interested in a range of crops and products, while others concentrate on production and marketing of one product e.g. soy;
- The development of Contract Farming of particular crops - primarily soy and sunflower at present - by FAAs together with large local buyers;
- Formalization of a five-year development sequence for SHGs, for development of Business Plans, which will indicate credit-worthiness to commercial lending institutions. This includes training of SHG members in the necessary business techniques relevant to four themes: (a) a package of low-cost organic recycling and other practices to rehabilitate land, and associated with methods for higher-value production of fruits and vegetables in home gardens; (b) modules for sustainable production of soy - to improve nutrition directly but also as a means of generating cash through adding value by processing; (c) modules for sustainable production of sunflower, again to improve nutrition directly as well as capable of local pressing to oil for local areas sales; and (d) teaching of bee-keeping, a low-cost investment for increasing income.
- The (recent) formation of a 'Farmers Own' (brand name) Company in which farmers and FAAs will be majority shareholders, and which will represent and organize their interests in contract farming, processing and marketing.
- Propagation of two levels of methods for adding value to crop products by processing: (a) at village level: extending storage life by methods such as sun-drying, juicing, cooking, making preserves; also expressing cane-juice for drinking and making simple sweets; (b) at FAA level, bulking-up produce for processing in two 'Farmers Own' Company factories - one in the west and one in the Midlands - for production of jams, chutneys, chew-bars, etc. to international standards of hygiene and quality. Such processing and packing by the Farmers Own Company will help to ensure that most of the money from sales comes back as dividends to the shareholding SHGs and FAAs which produced the goods.
- The development of the capacity of a fully-Kenyan NGO ‘ABLH-Kenya’ to provide to SHGs and FAAs (a) services in business planning, management advice, training and implementation of business plans, and (b) field technical services and assistance to members of the Company and collaborating groups in matters of Conservation Farming and certification.

The present
Work to implement the business-oriented features of the Phase II framework was initiated in September 1998. The framework itself continues to be refined and developed through ongoing experiences and discussions at monthly review-and-revision meetings.

The evolutionary sequence is shown in Figure 1.

Some 2000 farm families continue to improve their livelihood conditions via the Phase I actions, notably production of vegetables and fruits from double-dug composted beds. In the activities that make up the more demanding business-related aspects of Phase II, 24 small FAAs continue to develop their capacities as business possibilities are identified.

There is intense activity in developing new market opportunities. The current focus is on Kenya, where a range of products will be launched in October 1999. A strong professional approach is being taken to launch products, of Conservation Supreme quality and of 'Farmers Own' brand, onto the domestic market. This involves detailed market research, market intelligence, business plans, sales forecasts, preparations for in-store merchandising, and catchy promotions via the media encouraging people to support and encourage Kenya's own farmers by buying their products. Spearheading the marketing into Kenya is important for consolidation of activities and providing business experience in preparation for manufacture and export to other countries.

The key candidate markets overseas are the United Kingdom, Japan and Germany. Current plans aim at products being sold in at least one of these markets by Christmas 1999. In the UK, market investigations already show good promise for sales of Farmers Own brand products where quality and price are right.

DISCUSSION
Markets and husbandry
On one side of a ‘feedback loop’, the generation of
profits can allow for more investment in soil improvement in the farm; the other side of the loop is that the improvement of the soils increases the likely size and sustainability of profits that may be made from them.

**Certification and land husbandry**

A key feature of the ABLH strategy is that generating attractive profits from small-farm agriculture depends on selling fresh produce and processed products which are of reliable and certified high quality. This necessarily includes production by Conservation Farming methods to Conservation Supreme or even organic standards, which in turn include appropriate soil-management techniques; of these, the technique of double-dug composted beds is a remarkable example. The evident demand for products of certified quality therefore predicated the improvement of land husbandry on-farm as part of the overall production process.

**Certification and ethics**

Positive linkage between profits and soil health is implicit in the achievement of quality-assurance criteria for the Conservation Supreme and Organic certification of Farmers Own brands. In the same way that many consumers now wish to know that meat products come from animals which have been well-treated during their lives, and that timber products come from forests managed for sustainability, so it may be stressed that the produce with these certifications were produced on soils which have been well-managed to maintain and improve their productivity. Certification may emphasize the increase and improvement of the soil 'capital' while being able regularly to harvest increased 'interest' in the form of harvested crops. In this a strong emphasis on maintaining organic characteristics in soils, and maintaining nutrient flows and balances from a range of sources, should be a key feature. Certification requires better land husbandry, while better land husbandry in its turn contributes to rapid attainment of compliance with certification rules.

Yet, Kenya as a whole does not have regulations for in-country quality standards or criteria for certification. The project's activities in developing certification as to conservation-farmed sources and quality of its own farmers' products are bringing to Kenya now what the world in general will demand in future.

**Conservation farming practices**

Farmers' experiences with double-dug composted beds have attested to the greatly increased capacity of the (much-improved) root zone to support plant growth during dry spells and drought, particularly related to improvements in soil organic matter content and soil-moisture retention capacity among the soil voids. This provides buffering not only against effects of dry weather but also increases the new soil's capacity to allow sustainable intensification without severe damage if product-prices are attractive and pressures to crop more frequently are high. Food security for farm families is thereby increased, even if they may be hindered from or unwilling to take part in more-organized marketing activities as a second developmental stage.

The farmers' preparation of double-dug composted beds, usually near the house, generally covers only a few square meters, rather than a hectare, with this conservation-effective practice. Direct improvement of the rooting environment often affects only a small proportion of the farm. But indirect positive effects also follow from reducing the pressure on outlying fields because of the intensification of vegetable and fruit production (at least) on limited areas. This gives more opportunities for either restorative fallowing of cultivation fields and/or planting of perennials on places which otherwise would have been dedicated to annual food crops of low market value and often of low yields.

For small farmers' broad-field crops, notably the traditional maize and now soy and sunflower, double digging and composting are not feasible on any large scale. Nevertheless integrated pest management and integrated crop management, with due attention to maintaining good water-holding capacity of the soil, are principal components of the essential conservation farming component of the production system. However, as noted in the trans-Kenya survey, farmers are evidently beginning to spread the types of soil-improving benefits (which the intensive beds provide) further out into the broad-field cropping areas as well, a good omen for the future care of soils.

**Limitations to business development**

Resource-poor farmers in Kenya have expressed clear interest in generating profits, though initially with little or no experience of successful working as groups. But if they cannot sell in the poverty which continues to afflict rural communities, then group organization, strengthening, and self-management -- which provides strength in bulk selling into more-competitive and higher-value markets as well as providing mutual support and encouragement among members -- is an essential ingredient for success. However, there is a serious lack of personnel capable of providing guidance and training in how to work effectively in groups.

It is also found that there is a scarcity of private businesses in rural areas and also a lack of staff, among both Government and NGO agencies, with experience of rural business development based on certification, marketing, processing and associated demand-side aspects of the crop-to-market chain. There are, as elsewhere, many good and dedicated technical staff in research and extension who have training and experience only in the supply-side aspects of production, but who have little or no understanding of how the products get to market and how farmers gain their profits. Coupled with this, 'top-down' extension approaches of the past have militated against staff needing to understand farmers' rationales for their actions at the farm level, and therefore little awareness of the potentials for progress through this type of group-led rural business development.

**Support until profits appear**

To date, it has been a 'process' project, exploring the needs and possibilities for vertical integration, based on responding as best possible to groups of farmers, and following through into more unfamiliar territory of marketing and business development. It is anticipated that in the near future the FAAs and Farmers Own Company will
cover costs and begin to show trading profits. Experience shows now that, for equally rapid development elsewhere, external financial support needs to be invested -- in staff and raising their skills and capacities; in investigations, in running expenses, in capital equipment -- until such a stage of profitability is reached. This may in most situations need to be for five or more years, to allow time for staff to understand and gain enough experience in unfamiliar business-based themes, and in unfamiliar organic-based conservation-farming methods, and so to be able to guide SHGs and FAAs. A second reason is that, no matter how rapid, the graph of uptake of new ideas and practices among risk-prone farm families is an S-shaped, not straight, line over time. In the first two to three years, the rate of spread may be slow as farmers watch and evaluate the stability of improvements made by the bolder few. If adequate advisory assistance, facilitation and back up is available, rapid spread may take place over the next few years, providing the lead-in to development and stabilization of farmers' organizations and the generation and re-investment of their net profits from trading.

**A role for NGOs**

In this chain of activities, there is a particular position of great potential for NGOs that have both the capacity and expertise not only for agricultural improvement but also for business development. They can provide the initial impetus for both technical and business activities such as are outlined above. By linking with donor agencies which are prepared to provide money for start-up investments in both these joint and complementary fields of activity, NGOs can get the process to the stage and size where commercial concerns further along the marketing chain begin to become interested in such activities as exporting.

If such NGOs are to play a lastingly useful role, it appears to be essential that they develop a commercial orientation and work together with established businesses that have their commercial 'feet on the ground'. With hindsight we can now see that it is appropriate to develop such farmer / NGO / commercial-firm partnerships from the outset of Phase I activities, taking the different but planned actions in an appropriate sequence aimed at generating profits for equitable sharing between those involved.

**A role for Government**

Government's role in this business-based process in rural development would ideally be as benevolent facilitator and regulator. 'Tax breaks' and other appropriate financial incentives to entrepreneurs would help to get things started. Reduction of bureaucratic hurdles would enable more timely and more-effective practical support to be provided by administrative and technical agencies of government both to farmers and to those working in partnership with them. The maintenance of certification standards should be an important aspect of its regulatory role, to assure evenness of standards countrywide and to maintain reliability and credibility of Farmers Own products' quality in export markets.

**CONCLUSIONS**

The project was conceived as, and continues to develop as, a role model demonstrating a new framework for improvement of rural livelihoods that combines sustainable natural resource management with wealth creation. The responses of farmers to the introduction of conservation-effective production practices has been enthusiastic, and is likely to be sustained as long as they perceive that net benefits - particularly cash - continue to be derived from them.

It began with SHGs and a land husbandry focused on production. Then the need for markets and profits became apparent from better understanding of farmers' viewpoints. Arising from that has been the need to develop, rather than just explore, market opportunities, and to build lines of supply behind those opportunities. This leads back to farmer groups and to the need for certification, which itself requires better husbandry of the land so as to satisfy the required quality standards.

The results to date exhibit the advantages that follow from better husbandry of the land joined with specific attention to marketing its produce. These can be seen as social, economic, agrologic, and ecologic benefits to farm families. They also illustrate the roots of sustainability, which grow jointly from (a) the latent skills and enthusiasms of rural people when involved in matters that appropriately address their livelihood concerns, and (b) the self-regenerating capacities and resilience of soils when suitably managed, and which inheres predominantly, but not exclusively, in their organic materials and processes.

The success of the project to date, albeit covering very small proportions of Kenya and of its rural populations, demonstrates how to promote practical forms of relief of rural poverty -- increased food security and generation of cash in conjunction with environmental improvement -- which may be complemented by, but cannot be substituted by, complementary programs in rural health and education. This has been driven by and achieved by farmers themselves without handout incentives. It suggests a new paradigm for conservation-effective and sustainable agricultural development. It has found favor with farm families who may earlier have been on the edge of rural destitution. Its concepts and approach are believed to have wider applicability not only in Kenya but also in other countries facing comparable problems of rural poverty.

It is acknowledged that the size, scope and direction of the project has expanded and altered since the early days of working with a few almost-destitute farmers at the edge of the Kakamega forest. For both farmers and staff it is a project exploring a process of development, not a blueprint of actions planned from the outset. It is unlikely to have a fixed end-point, rather a maturing of actions, capacities and responsibilities over the coming seasons into a self-motivated wholly Kenyan ongoing partnership with farmers.

Though it has not been a blueprint, for others in future it can provide a set of guideposts to the way that developments may tend in response to farmers' concerns. If we are seriously intent on alleviating poverty on a large scale then we have to help in developing large strong businesses with
well-branded products that can compete effectively in the real world. Such businesses have to be of a 'limited company' structure but with an essence of the cooperative within them. Equity has to be in the hands of the producer groups if they are not to be sidelined yet again, and they must have a greater say in running the companies than is usual, within the strategies agreed between them and the company management staff.

“There is ... need to change hearts and minds, and to stimulate many practitioners into more vigorous response in service of farmers' demands. To achieve this needs strong management and there must be clear targets established for staffers in key agencies [whether Governmental or Non-Governmental Organizations]. There must also be a strong effort to create awareness and interest people in new methods. That task is the responsibility of the body of professional and farming people already committed to identifying better development methods. There is no better introduction than helping professionals to participate and listen to the farmers' voice.

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