Choosing Sustainable Agriculture
Challenging Industrial Agriculture

UKFG Conference
Kew Gardens

February 26th 2001

Contents

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Summary

The UK Food Group organised the *Choosing Sustainable Agriculture - Challenging industrial agriculture* conference to explore and discuss strategies that could feed the world and try to develop co-operative approaches amongst UK NGOs.

The conference set out to:

- explore the approaches that can create sustainable agriculture suitable for differing cultures and geographical regions based on a set of principles
- focus on how to remove the barriers to sustainable agriculture to enable farmers to realise the full range of options that are available to them
- integrate NGO work programmes and develop co-operative strategies to influence the national and international food and agriculture agenda.

Rachel Hine from the Centre for Environment and Society was invited to present a summary of research findings from a recent survey of successful sustainable agriculture projects from around the world. Davo Simplice Vodouhe and Tadeu Caldas were invited to share their experiences of the practical challenges of establishing sustainable agriculture projects and explain the very real benefits that farmers the world over could enjoy from their success. A range of representatives from UK Food Group member organisations were also on hand to answer questions about how to achieve the right balance in promoting sustainable agriculture. Finally Bill Vorley set out the need to work collaboratively to have a greater chance of success based on his experiences of the Trans-Atlantic Dialogue on multi-functional agriculture.

There was a general consensus that sustainable agriculture was comprised of a range of elements that include:

> the conservation of soil fertility, the prevention of soil erosion, reductions in the use of non renewable energy, the avoidance of agricultural pollution, the conservation of agricultural biodiversity, the restoration of greater autonomy to farmers, more equitable land distribution an avoidance of dependency on high technology solutions, and greater support for organic farming techniques - while retaining a focus on producing enough food to feed the hungry.

What became clear during the day was that the benefits of sustainable agriculture are now beyond doubt (as evidenced by Rachel Hine's and Davo Simplice Vodouhe's presentations provided in this report). However, work still needs to be done to clarify an identity of sustainable agriculture that could be meaningful for producers, policy makers and consumers. Tadeu Caldas stressed the benefits of having an identity such as Organic or Fair Trade, to set the produce apart once it had left the farm. However, it is not clear how farmers outside of the organic and fair trade 'catchments' can identify themselves so that they can get the support they deserve from policy makers or producers.

A number of 'small steps' were identified in group discussions that it would be appropriate for the UK Food Group to focus on. Most immediately the compilation of a Compendium of Good Practice from within the membership and other allied organisations might help to begin to establish a clearer identity for sustainable agriculture. It was also felt that there was a role for members to help each other to face some of the immediate challenges ahead, such as how to integrate sustainable agriculture approaches into emergency relief efforts. This conference should not be the end of the UK Food Group's involvement in these issues, but just the beginning.

Chris Emerson
March 2001

Reducing poverty with Sustainable Agriculture
A Review of Evidence

Rachel Hine
Centre for Environment and Society
University of Essex

World food security -

- Enough food, but 790 million people hungry in 2000
- Food demand set to grow and shift in the coming decades, as:
  - population growth increases absolute demand for food
  - economic growth increases people's purchasing power
  - growing urbanisation - new diets, more demand for meat
  - climate changes and sea level rises

Three choices for agriculture

- expand the area of agriculture, by converting new lands to agriculture
- increase per ha production in agricultural exporting countries (mostly industrialised),
- increase total farm productivity in developing countries which are most going to need the food - Best options for the poorest

The first two are known to work, but not for the poor

Key questions:

- To what extent can farmers improve food production with low-cost and locally-available technologies and inputs?
- Can they do this without causing further environmental damage, or even by improving natural resources?

Sustainable Agriculture

- A more sustainable agriculture seeks to make the best use of nature's goods and services
- Integrates natural and regenerative processes into food production processes
- Minimises the use of non-renewable inputs that damage the environment or harm health
- Makes best use of knowledge and skills of farmers
- Make productive use of social capital
- Also contributes to public goods ~ clean water, wildlife, carbon sequestration in soils, flood protection, landscape quality, rural jobs

SAFE Research Project

- Aims
  1. Audit recent progress in developing countries towards sustainable agriculture,
  2. Assess the extent to which such projects/initiatives have increased local food production

Surveyed 208 projects in 52 countries using questionnaires, project reports and evaluations, and verifying experts - purposive sampling - not random

Cases rejected where:

- no obvious sustainable agriculture link
- participation in projects was for direct material incentives as there are doubts that ensuing improvements persist after such incentives end

- there was heavy or sole reliance on fossil-fuel derived inputs, or on their targeted use alone this is not to negate these technologies, but these were simply not the focus of this research;
- the data provided was too weak or the findings unsubstantiated

Farmers and hectares

208 projects/initiatives
8.98 million farmers have adopted sustainable agriculture practices and technologies
28.92 million hectares equivalent to 3.01% of the 960 million hectares of arable and permanent crops in Africa, Asia and Latin America - 8.44 m ha if discount large farms adopting zero-tillage in South America

5 Food production increase mechanisms

- intensification of a single component of farm system with little change to the rest of the farm ~ home garden intensification, vegetables on rice bunds, introduction of fish ponds or a dairy cow;
- addition of new productive element to a farm system such as fish in paddy rice, or agroforestry, which provides a boost to total farm food production;
- better use of natural capital to increase crop intensity e.g. water ~ water harvesting and irrigation scheduling / land ~ reclamation of formerly unproductive land;
- improvements in per hectare yields of staples through introduction of new regenerative elements into farm systems (eg legumes);
- improvements in yields through introduction of new and locally-appropriate crops and animals

Household food production

- for 4.42 million small farmers cultivating cereals as staples on 3.58 million hectares average food production per household increased by 1.71 tonnes per year (increase of 73%);
- for the 146,000 small farmers on 542,000 hectares cultivating roots as staples (potato, sweet potato and cassava) the increase in food production was 17 tonnes per year (increase of 150%);
- for the larger farms in southern Latin America (average size = 90 ha/farm) total production increased by 150 tonnes per household (increase of 46%)

Positive effects on livelihoods

- natural capital: increased soil water retention and groundwater levels; reduced soil erosion combined with improved organic matter in soils; increased agro-biodiversity
- social capital: more and stronger social organisations with new rules and norms for collective management of natural resources; and better connectedness to external policy institutions
- human capital: greater capacity to experiment and solve farm problems; increased status of women; better child health and nutrition; reversed migration

Important themes

- Functional biodiversity for pest management
- Growing the soil organic matter and carbon sequestration
- Water ~ drylands and irrigation
- Social organisation ~ connectivity, trust, obligations
- Food production in patches
- Markets and credit

Conclusion

- Promising increases in food production ~ cannot yet say whether will meet needs of current poor, future basic needs, and increased future demands

Need for further:

- Research efforts into sustainable agriculture, markets and institutions
- Supportive policies to help sustainable agriculture spread
- Sustainable agriculture needs enabling policies ~ appropriate support, incentives, and institutional reform

Greatest challenge - redesign of policies and policy processes as well as farming systems "Let a hundred flowers blossom and let one hundred schools of thought contend"

Organic Cotton and vegetable in Benin a way to promote as a way to promote Sustainable Agriculture

Davo Simplice Vodouhe[1]
OBEPAB

Introduction

Cotton is one of the main cash crops in Benin, representing approximately 24% of the Gross National Product and employing a large segment of the population. While cotton exports contribute a great deal to Benin's economic development, cotton production involves a large and increasing amount of pesticides and thus is a major contributor to health and environmental problems.

Utilising more than 80% of the country's imported chemicals, cotton is Benin's largest consumer of chemical inputs followed by cowpea and garden vegetable production. These include highly toxic pesticides such as endosulfan, which farmers began using when pests developed resistance to other chemicals. During the 1999/2000 growing season, endosulfan use contributed to the food poisoning deaths of approximately 70 Benin citizens. This contribution continues during the growing season 2000/2001 as its use continues.

Spurred by health problems in farming communities and by the high cost of importing agricultural chemicals, the Organisation Béninoise pour la Promotion de l'Agriculture Biologique (OBEPAB) has partnered with other NGOs and agricultural producers (cotton, cowpea and garden vegetable) growers to promote organic farming practices. The Cotton Project aims to reduce or eliminate the use of highly toxic pesticides through the conversion of conventional small-farmer production to farmer-centered agroecological systems. The organic cotton project helped to tackle also the problem of the use of cowpea as this is included in the crop rotation in the cotton project.

Lessons Learned

Several factors contributed to the success of OBEPAB's organic cotton project, including:

1. Demonstrated need within farming communities for non-chemical pest controls;
2. Farmer centred activities and decision-making;
3. Co-operation among northern and southern NGOS;
4. Favourable national and international environment and
5. Recognised importance of eco-labelling and organic certification for successful marketing.

Demonstrated need for alternatives

In recent years, Benin farmers have become increasingly aware of the health problems associated with pesticide use - including consequences such as dizziness, vomiting, and even death. In addition, farmers realised that they were spending much of their income on imported agricultural chemicals. To protect the health of their communities and to improve the profitability of their farms, farmers began looking for alternatives to the use of chemical pesticides.

In 1994, OBEPAB conducted a study on pesticide use in Cotton production. The study found that a variety of Pesticides were used on cotton and that farmers did not always take the necessary precautions before using them. Pesticides were sometimes stored in inappropriate places, including kitchens and bedrooms, and farmers were suffering illnesses that could be attributed to pesticide exposure. OBEPAB also conducted a feasibility study to analyse the options for growing and marketing organic cotton.

Organic cotton production started in Benin in 1996 with the launch of a series of pilot projects. These small pilot projects were started in order to generate data on the feasibility of organic

[1] Simplice Davo VODOUHE is the co-ordinator of OBEPAB “Organisation Béninoise pour la Promotion de l’Agriculture Biologique”. Contact : 02 BP 8033 Cotonou, Benin ; Tel: +229 301975 or +229 905183;
Fax: +229 300276 ; Email. obepab@bow.intnet.bj

agriculture. After the first year of production, a regional seminar was held to share the initial results with stakeholders. In the process of organic cotton, cowpea for which pesticides are also used extensively is taken into account and producers do not use chemical on them. The reduction of pesticides use is on both cotton and cowpea.

Following the seminar, more and more farmers and entire villages began to transition to organic cotton practices. Within four years, the number of farmers who joined the program increased by 700%. Table 1 shows the significant increase in the number of participating farmers, as well as the resulting production and yield.

Table 1

Season	# of farmer	Cropped area (Ha)	Production in tonnes	Yield (kg/ha)	Price/kg of seed cotton
1996-1997	**17**	**9,7**	**4,80**	**494**	**240**
1997-1998	**47**	**21**	**9,50**	**450**	**240**
1998-1999	**113**	**102**	**35,910**	**352**	**250**
1999-2000	**119**	**80,6**	**45,340**	**562**	**210**
2000-2001	**309**	**244**	**-**	**-**	**240**

Source: OBEPAB 2001

Farmer- centred activities and decision making

Another critical component of the Cotton Project is the importance placed on farmers' experience, traditional knowledge, and ideas. Farmers' organisations and cotton growers are at the centre of all decision-making, exerting control over their own agricultural activities. Local farmers' pest control techniques are used to identify sustainable and chemical-free crop protection systems. OBEPAB credits improvement of organic farming practices to farmers' indigenous knowledge.

For example, the large-scale application of pesticides and fertilisers has lead to lowered soil fertility. Alternative fertilisation practices involve soil capacity by using manure and crop rotation with legumes. Traditional practices were documented and tested, such as using tchochokpo, a residue from palm oil extraction and wood ashes, to fertilise the soil and increase yields. Similarly, the leaves/and seed of papaya are used to control cotton pests. The adoption of these organic alternatives has helped farmers reduce their dependence on costly external inputs by relying on locally available materials. In addition, these practices help to maintain the population of beneficial insects in organic fields, further reducing the need for agricultural chemicals.

The project also relies on the Farmer Field School approach, which combines education with field-based, location-specific research, providing farmers with the skills and knowledge to make ecologically sound and cost-effective decisions. Extension agents visit farmers regularly to give advice and train them to recognise pests and beneficial insects. As farmers become more confident and knowledgeable about organic practices, eventually they will require little outside assistance.

Farmers are the driving force behind the success of the project. Recognising improved cotton yields and the better health of their farms and their families, participating farmers influence their neighbours to convert to organic agriculture.

Certification

OBEPAB has been working to establish a certification process for Benin's organic cotton. During the first two years of the project OBEPAB did not pursue certification due to the high cost and the lack of identified markets. As the project matured, however, producers began to develop recommendations for organic certification. Both internal and external certification controls were established - the internal controls involved farmer organisations at the village level, while the external control was exercised by OBEPAB with assistance from the Dutch Agro Eco agency.

OBEPAB eventually contracted a certification agency, Ecocert, to handle the final certification process.

While OBEPAB and Benin organic cotton growers still have work to do to achieve their certification and marketing goals, they have made extraordinary progress in moving away from toxic pesticide use. With the co-operation of several NGOs and the commitment of farmers, the Cotton Project has demonstrated that organic production in a developing country can be successful, sustainable, and profitable.

Garden vegetable production

In Benin, the peri urban gardeners relay heavily on synthetic pesticides to control pest and diseases of vegetable crops. A number of chemicals used by vegetable farmers are prohibited by the plant protection services. Some times, farmers don't respect the number of days after spraying recommended for the consumption of sprayed vegetable. The products of the peri urban farming are largely consumed in Cotonou, the most important city of Benin. These facts show that farmers lack information on long term effects of chemicals on their environment and their health. They just follow their economic need and sell those dangerous products for public consumption. This situation is so crucial that one farmer disappointed with the behaviour of his colleagues said: "I never eat vegetable food outside unless I am sure that it comes from my own garden".

Activities undertaken

In order to reduce the use of pesticide in the peri urban gardening, OBEPAB was engaged in the seeking of appropriate information and innovation to avoid such situation. OBEPAB discovered that the International Institute of Tropical Agriculture (IITA) through its project named PEDUNE "Protection Ecologiquement Durable du Niébé" has developed some botanical pesticides from the neem and papaya leaves on cowpea. OBEPAB with her experience of the botanical pesticides use in the organic cotton production, decided to adapt the techniques developed on the cowpea to vegetable production.

The training activities focus on the use of the neem and papaya leaves to control pest. The training was coupled with some on-farm-trials to compare the efficiency of the neem leaves, the papaya leaves and one synthetic pesticide chosen by farmers. OBEPAB carried out those training as part of its outreach activities in the development of documentation and information on pesticides and sustainable agriculture. OBEPAB benefit from the technical and organisational support of IITA and the CARDER (the official extension service).

During this training, some tools were borrowed from the Farmer Field School (FFS) methodology such as the "learning by doing" approach, pictures and practical experiments. Each participant allocate for the trial at least six beds (two for neem, two for papaya and two for decis[2] (or Orthene), the synthetic pesticides chosen by farmers themselves.

Two sessions of training was held and each last three months with four groups of about fifteen farmers each. During that period, each group met two times a month and farmers were visited individually by a field agent of OBEPAB on a weekly basis to assess their problems and their further need of information.

The issues the training dealt with are related to:

- Effect of synthetic pesticides on the human health and the environment ;
- Life cycle of insect ;
- Categories of insects (pest and predator) and recognition ;
- Scouting methods ;
- Existing pest control methods ;
- Process of preparation and utilisation of neem and papaya extracts.

[2] The results with the decis and orthene 75 S.P (the active ingredient is Acéphate [O,S dimethyl acetylphoramidothiote]) are similar. We present only the results obtained with the decis.

The trial was about cabbage and concumber, which are said to be the more damaged vegetables by pests.

Some results
The synthetic chemical decis killed 80 % of pest and 100 % of predators. Whereas the neem killed 72 % of pest and 33 % of predators and papaya killed 62 % of pest and 40 % of predators. This situation explains clearly that the decis is the most efficient of the three products on the pests. Unfortunately, it killed all natural enemies. It seems that the neem and the papaya kill also predators. According to our observations, the action of the neem and papaya is not immediately harmful for the predators. They repel some of them and the liquid spayed wet the bodies of some predators that finally dead. It is also clear that the neem and the papaya killed some of the pest and repelled some other. The farmers were happy with these experiments and are willing to continue to use the neem and the papaya for two main reasons.

Firstly, the cost of the pest control by the neem and the papaya is low. If we suppose that the farmers pay for the search and for the pounding of the leaves, they spent 400 F CFA per bed (10 m^2), the equivalent of USD $ 0.58 by using the neem and the papaya. At the same moment, they spent 900 F CFA per bed, the equivalent of USD $ 1,3 by using the decis. The use decis is therefore costly compared to the papaya and neem leaves.

Secondly, they sold quickly their products, even if they didn't get a premium. Some of consumers since they are informed that they can buy some vegetables free of chemicals, they prefer them. The pressure on the vegetables treated with the neem and the papaya leaves was so high that they were sold more quickly than the one treated with decis. The most important constraints the farmers point out was related to the pounding of the leaves. This operation is so hard for them that they would like that the further steps of this experiment look at some specific manual machine to make easy the use of the neem and the papaya leaves.

These training activities permit to the farmers to improve their knowledge and convince them that there are other possibilities than synthetic chemicals to control the pest of their crops. The farmers learn also through this training that there is a **demand for chemical free vegetables and that is for them a good business**. After the trials, we note a spontaneous diffusion of the use of neem and papaya leaves. Some of farmers who hosted the experiment beds have extended the use of neem and papaya leaves to some additional beds and some of their neighbour who didn't host any trial started to use the neem and papaya leaves on their vegetable crops.

Co-operation among North and South NGOs
The Cotton Project has benefited close co-operation within a network of southern and northern NGOs that have shared experience and exchanged information on alternatives to toxic pesticides. This network includes three southern NGOs (OBEPAB in Benin, Pesticide Action Network Africa based in Dakar, and GOAN in Ghana) and two northern NGOs (Pesticide Action Network UK and Powerful Information in UK).

Field activities have been financed with development assistance from the Centre Béninois pour le Développement Durable and the Dutch-based bilatéral organisation, Ecooperation. The network has also received financial support from the UK's National Lottery Charity Board, which has contributed to.

- initiating contact between partners and potential European organic cotton markets;
- offering training in organic cotton production; and
- facilitating information exchange among southern NGOs through conferences and ongoing communication.

As farmers in Benin have become aware of the dangers associated with chemical pesticides, many have looked for additional information and sound alternatives. OBEPAB, in co-operation with partner NGOS, helps farmers to find sustainable solutions. Locally, farmers are learning from each other and are benefiting from in-field training and demonstration. Internationally, OBEPAB

members have been given opportunities to continue training and to attend international conferences that address pesticide alternative issues.

A documentation centre has been opened to facilitate farmers' access to information on pesticides and their alternatives. The centre conducts outreach activities to raise awareness on issues related to pesticides and biodiversity.

Comments from Question Time

Biotechnology

GM seeds are the answer to no question that has been asked - Tadeu Caldas

GMOs remove the autonomy of the farmer to control their own destiny and therefore cannot be part of sustainable agriculture - Davo Simplice Vodouhe

GM seeds could further destroy agricultural biodiversity - John Madeley

Over 50% of GM research is into herbicide tolerance - Dwijen Rangnekar

Cash Crops (can they contribute to food security?)

Only if farmers get fair prices - Barbara Dinham

Do not forget some food surpluses are cash crops - Tadeu Caldas

They could but crop prices are too low - John Madeley

Alternatives to international trade system

Too much power is in the hands of the retailers, although fair trade offers hope - Tadeu Caldas

In India the government supports two different models for improving local sourcing of indigenous products to avoid dependency on trade. The first type is small-scale local production and distribution systems and the second, investment in large scale capital equipment (tractors) to improve productivity with one operator 'farming' lots of farmers land and paying them for the use of their land - Ruchi Tripathi

Only 10% of all agriculture is internationally traded and yet the rules that govern that are impacting on all agriculture - Antonio Hill

Sustainable agriculture and poverty reduction

Many effective long-term benefits from sustainable agriculture so there is no need to risk the unproven technologies being put forward - Patrick Mulvany

Rural livelihoods approaches help to understand the benefits - Barbara Dinham

Livelihoods approach shows the real costs of unsustainable agriculture (e.g. pesticide use) and therefore shows the benefits of sustainable agriculture - Antonio Hill

Majority of global population makes income from agriculture, you need land reform to enable the benefits of sustainable agriculture to be maximised - John Madeley

Sustainable agriculture and livelihoods are linked to indigenous seeds and knowledge and these are under threat from industrial agriculture - Ruchi Tripathi

What is the sustainable of sustainable agriculture?

The ability to retain future capacity - Tadeu Caldas
Control in the hands of the farmers - Ruchi Tripathi
Significance of communities - Dwijen Rangnekar
Integration - Patrick Mulvany

Working Collaboratively: transatlantic NGO collaboration
Bill Vorley, IIED

Context: Three Rural Worlds

- Rural 1 Globally competitive
- Rural 2 Local orientation, landowners, 'shrinking/messy middle'
- Rural 3 Fragile entitlements, income and education-trapped, self-exploitation, unwaged family labour. Redundant relative to food and fibre production.

(after work by Bill Reimer in Canada and David R. Davila Villers in Mexico)

- Subsidies on both sides of the Atlantic go to largest farms and are amortised into price of land and inputs (favour landowners).
- The mindset of modernising agriculture endures with the EU, and the CAP remains a largely unreconstructed sectoral policy.
- Key legislation US: FAIR Act 1996
  EU: Agenda 2000
  'European Agricultural Model'

- Other key drivers EU: BSE

- WTO position US (Cairns): Agriculture equivalent to manufactured products
  EU: Agriculture is a special case

Analysis

- US seeks to exploit comparative advantage
- Global division of labour--core of well-paid workers while rest are flexible, casualised, low paid.
- Rural areas competing for global pool of capital
- Margins threatened
- Note that the global economy and 'livelihoods economy' are completely separated. Agribusiness (eg food processing firms and supermarkets) and commodity policies, and more recently health and safety policies have driven differentiation in the countryside.
- Rural 2: off-farm work is the norm. Undercapitalised
- World of Rural 3 swelled (from Rural 2) by declining returns from ag commodity production and increased production risks--drove rapid income diversification to ensure basic livelihoods. Faces mental and physical erosion. Subsistence fallback--a residual and reviled option (Bryceson)

Policy Priorities

- Rural 1: Codes of Practice, Competition Policy
- Rural 2: Voluntary associations
- Rural 3: Literacy, education, training, small and medium enterprises

Divergent Sustainable Agriculture and Rural Development Rhetoric

US	EU
Productivist interpretation ('more food and income with less harm')	Multifunctional interpretation ('more public goods')

Roots

US (+ Cairns hardcore)	EU (+ NE Asia, Norway, Switz)
Favourable climates and soils, sparse population, late colonisation, productive capacity far beyond own needs	Very densely populated, repeated food shortages over history Small farms

Choosing Sustainable Agriculture - Challenging Industrial Agriculture UKFG

Economies built on agricultural exports from large-scale extensive agriculture, with low production costs	Agriculture and society evolved in close spatial and cultural proximity
Agriculture developed mainly in 'heartlands', geographically removed from bulk of population	Countryside increasingly a place of consumption as well as production
	Level of public scrutiny of agriculture rather high - BSE!!

(partly after Einarsson 2000)

Perceptions of Multifunctional agriculture

US	Developing Countries
Old protectionism in new clothes	Concept is evolving with little relevance for LDC development or food security concerns
A political construct	
Enlarges definition of Green Box	Multifunctional agriculture in the North forecloses on opportunities to derive multiple benefits from Southern agriculture
Opposite of good trade measure: subjective, ambiguous, arbitrary, able to hold subtle forms of protectionism	

Parallel evolution in the US:

- Working Landscapes (IATP et al)
- Multiple Benefits (LSP)
- Conservation Security Act

Transatlantic dialogue

1995: New Transatlantic Agenda (NTA) agreed between US and EU

Officially encouraged and funded meetings of interest groups from both sides of the Atlantic--business (TABD), labour, consumers, funders, environmentalists (TAED), for reaching common positions on various issues that they can take to governments "for the express purpose of obtaining policy advice towards more effective intergovernmental policymaking."

See http://tiesweb.org/nta/default.html

Lisbon January 2001 - TAED statement 'World Trade, Food Production and Multifunctionality'

First substantive event among the NTA dialogues: The role of EU and US stakeholders in promoting sustainable agriculture and rural development and the importance and impact of EU-US relations in this field, both domestically and globally.

- Background paper
- Common understanding
- Extra 1-day meeting on transatlantic co-operation

A 5-year process of transatlantic linkage between grass roots projects and academics on both sides of the Atlantic...

- To identify and analyse policy instruments and market-based approaches that enable farming to provide essential social and environmental services, while also keeping land and farmers in agriculture; and
- To measure these instruments and approaches for their environmental, landscape and cultural performance, retention of benefits in rural areas, contributions to equity, impacts on transitioning and developing countries, and political acceptability..

... which develops into a high-level strategic policy network that..

- Exposes key actors to a range of market and policy options available to support the multiple functions of agriculture;
- Builds new strategic relationships in the environmental, farming, rural development, biodiversity, food, and consumer communities;
- Influences CAP reform in the EU and its member states, US farm and environmental legislation, and UN and WTO negotiations;
- Influences the development of the marketplace to support multiple benefits from agriculture.

Promoting sustainable agriculture

In the small group sessions of the conference delegates were asked to comment on two questions:
1. What are the major barriers to sustainable agriculture?
2. How can the UK Food Group and its members work to overcome those barriers?

The following comments are extracted form the responses compiled by the groups.

Barriers to sustainable agriculture

- How do you know it when you see it?
- The strength of TNC market control
- Research dominated by highly technological 'solutions'
- External costs not internalised in conventional agriculture
- Gender invisibility
- Limited access to / control over resources - plant, animal genetic, water etc
- Intellectual Property Rights
- Policy makers assumption that conventional agriculture is more productive
- Belief that sustainable agriculture is complex
- Consumer demand for cheap food
- Lack of control / co-operation between farmers
- Lack of policy support
- Vested interests in the status quo
- Lack of recognition of farmer knowledge / expertise
- Lack of financial resources / policy support
- Trade liberalisation
- Lack of information flows between producers and consumers
- Market domination in the North
- Conflict between food security and foreign exchange
- Need for land reforms
- Need for policy consistency

Strategies to promote sustainable agriculture

- Greater support for organic farming
- Expose the marketing chain
- Improve marketing / labelling of sustainable agriculture's produce
- Raise profile of women in agricultural / livelihood issues
- Ban patents on life
- Identify intermediate steps to sustainable agriculture - seed saving, agrochemical reduction, knowledge rather than technology based agriculture
- Demonstrate sustainable farming of staple crops (cereals)
- Provide farmers greater access to information
- Demonstrate the productivity of smaller farms
- Follow up SAFE findings about success despite policy and identify small concrete changes
- Disseminate success stories from within the UKFG membership for policy makers and to improve consumer awareness
- Implement more projects promoting 'local' self-sufficiency
- More awareness raising in the South of the impacts of new technologies (e.g. GM)
- Promote farmers rights for seed saving
- Establish the link between agriculture and livelihoods
- Audit true costs / benefits of development options
- Strengthen competition policy
- Facilitate Southern national debates between policy makers and farmers

Conference Participants

Kevin Bundell	Christian Aid
Katel Cadoret	Henry Doubleday Research Association
Tadeu Caldas	Eco Tropic
Anne Claire Chambron	Farmers Link
Andrew Clayton	Christian Aid
Tom Crompton	RSPB
Elizabeth Cromwell	Overseas Development Institute
Barbara Dinham	Pesticides Action Network UK
Chris Emerson	Agri/Environmental Consultant
Keith Etherington	Tear Fund
Adrian Friggens	Farmers World Network
Antonio Hill	Oxfam
Joyce Hambling	Genetic Engineering Network
Rachel Hine	Centre for Environment and Society University of Essex
Andrew Jowett	Harvest Help
Laura Kelly	ActionAid
Charlie Kronick	Greenpeace UK
John Lampitt	Farmers World Network
Elaine Mackie	Tear Fund
John Madeley	Author/Journalist
Patrick Mulvany	ITDG
Sachlan North	Suisla Dharma Int. Assoc.
Jagdish Patel	UK Food Group
Barnaby Peacocke	ITDG
Dwijen Rangnekar	Research Fellow, UCL
Jeremy Stickings	Natural Resources Institute
Richard Tapper	Environment & Development Consultant
Dan Taylor	Find Your Feet
Jacky Turner	Compassion in World Farming
Ruchi Tripathi	ActionAid
Simplice Davo Vodouhe	OBEPAB, Pesticides Action Network Africa
Bill Vorley	IIED
Kitty Warnock	Panos
Stephanie Williamson	Pesticides Action Network UK

E-mail Contacts for Contributors to the UKFG Conference

Antonio Hill, Oxfam	ahill@oxfam.org.uk
Barbara Dinham, PAN UK	barbaradinham@pan-uk.org
Bill Vorley, IIED	Bill.Vorley@iied.org
Dwijen Rangnekar, UCL	d.rangnekar@ucl.ac.uk
John Madeley	JohnMadeley@compuserve.com
Laura Kelly, ActionAid	Laurak@actionaid.org.uk
Patrick Mulvany, ITDG	patrickm@itdg.org.uk
Rachel Hine, CES	rehine@essex.ac.uk
Ruchi Tripathi, ActionAid	RTripathi@actionaid.org.uk
Simplice Davo Vodouhe, OBEPAB	obepab@bow.intnet.bj
Tadeu Caldas, ECOTROPIC	TCaldas_ECOTROPIC@compuserve.com