



GROWING FOR THE FUTURE

Unilever and sustainable agriculture



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Foreword

Since the mid-1990s, Unilever has been consulting with experts and engaging with suppliers, customers, consumers and business partners around the world to find a sustainable way forward for agriculture.



We are among the world's largest users of agricultural raw materials, such as tea, vegetables and vegetable oils. Unilever has shared the benefits of nearly half a century of dramatic increases in agricultural productivity brought about by scientific advances in farming, and the work and ingenuity of farmers throughout the world.

Despite these huge successes and the eradication of the threat of famine in many regions, all is not necessarily well in the fields and plantations. Farm productivity has declined overall in Africa and there are concerns that many of the successes have come at a cost to the environment and rural communities. Experts are worried, among other things, about a decline in soil fertility, biodiversity, the availability of clean water, and the quality of rural life. They feel – and we share their views – that agriculture needs to address these matters if it is to continue to feed a fast-growing population and contribute to sustainable development.

This has led us to develop the Sustainable Agriculture Initiative. We believe that there needs to be a greater diversity of approaches to farm and plantation management. All agricultural systems have something to offer and we want to find out what works best under differing circumstances.

Our early experience working with others on fisheries has confirmed our belief that it is through market mechanisms that this will happen. They can stimulate performance improvement and efficiency along the supply chain and raise quality standards to meet consumer needs and expectations.

Ultimately, we want the market to work for sustainable development and to encourage fully sustainable agricultural systems. We want to contribute to their development and benefit from them.

This booklet outlines our thinking and describes our current progress. We are at the beginning of a very long journey and we need the continued help of others if we are to make progress. We are committed to engage with our stakeholders and I urge them to make contact if they wish to contribute in any way.

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Jeroen Bordewijk

Chairman, Unilever Sustainable Agriculture Steering Group

What this booklet is about



Our aim is to meet the everyday needs of people everywhere. This is at the heart of our Corporate Purpose which embodies the principle of creating value for our stakeholders by meeting consumer needs.

We feel that this can only be achieved and maintained in the long term if our actions are determined by the broader principles of sustainable development: ensuring we meet the needs of today without jeopardising the ability of future generations to meet their needs. This means we must align our economic goals with the social and environmental consequences of our work.

Our consumers trust in us to supply them with high-quality goods that are produced in an environmentally and socially responsible way. We therefore have a responsibility to act as agents for our consumers, ensuring their expectations are understood along the supply chain.

UNILEVER'S CORPORATE PURPOSE



Our purpose in Unilever is to meet the everyday needs of people everywhere – to anticipate the aspirations of our consumers and customers and to respond creatively and competitively with branded products and services that raise the quality of life.

Our deep roots in local cultures and markets around the world are our unparalleled inheritance and the foundation for our future wealth. We will bring our wealth of knowledge and international expertise to the service of local consumers – a truly multi-local multinational.

Our long-term success requires a total commitment to exceptional standards of performance and productivity, to working together effectively and to a willingness to embrace new ideas and learn continuously.

We believe that to succeed requires the highest standards of corporate behaviour towards our employees, consumers and the societies and world in which we live. This is Unilever's road to sustainable, profitable growth for our business and long-term value creation for our shareholders and employees.

Our raw materials

Unilever relies heavily on the natural raw materials used in our products, such as vegetable oils, vegetables, tomatoes and fish. We are major buyers of these items on world markets and are also involved in agriculture, either directly or with contract growers. This gives us some influence on how the materials are produced and considerable social responsibility to use our influence wisely.

Our aim

We have a clear obligation to our shareholders and consumers to ensure that we continue to have access to supplies of these materials. Fulfilling this responsibility gives us a valuable opportunity to contribute to sustainable development, which in turn, we believe, is the only way to secure our long-term supply.

Since the mid-1990s we have worked with others in developing a long-term programme we call the Sustainable Agriculture Initiative. Our aim is to ensure continued access for Unilever to key agricultural raw materials, and in the long term, to develop market mechanisms that allow consumers and customers to influence the sourcing of agricultural raw materials through their buying habits.

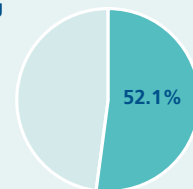
The principle of sharing knowledge freely, such as methods for measuring and communicating performance, underpins our approach. Part of our strategy is to stimulate our industry peers to take initiatives similar to our own.

Our approach focuses on how to improve the sustainability of current farming methods, in particular locations. We will not, for now, consider the broader issues in the sustainable agriculture debate, such as the suitability of certain regions for specific crops.

WHO WE ARE AND WHAT WE DO



Unilever is one of the most international companies in the world with operations in more than 90 countries spanning every continent. Unilever products are in two main categories: foods, and home and personal care. The Unilever portfolio includes a balanced mix of local, regional and international brands that take account of the differences as well as the similarities in consumer needs worldwide. Some of our food brands are: Rama, Lipton, Magnum, Iglo, Ragú, Bertolli, Annapurna, Birds Eye.



UNILEVER 1998 PROPORTION OF TURNOVER CONTRIBUTED BY FOOD

MEETING CONSUMER NEEDS AND EXPECTATIONS



Our research shows that people are clearly concerned about the state of the environment. This was confirmed when we looked at trends that might influence the future, in an attempt to understand the way the world is changing and how this will affect consumers and our Company in the next decade.

Consumers expect companies such as Unilever to meet their needs with products that have the lowest possible environmental impact. Our ability to respond to these expectations is central to our licence to operate and will affect the way we run our business and the types of products we design and sell. Public concerns about the environment have particular relevance to our views on agriculture and the need for reform of current practices.

This booklet explains how we intend to achieve our aims and gives greater detail on our thinking. It also describes our progress in working with others to develop our initiative. (Find further information on our other sustainable development initiatives – on water and fisheries – on our website at www.unilever.com.)

Agriculture and Unilever



Modern agriculture, with its emphasis on new crop varieties supported by fertilisers and crop protection chemicals, has had a dramatic and positive impact on food supplies.

The “Green Revolution”, begun in the 1960s with the development of high yield crops, has helped to transform the productivity of agriculture and as a direct result food is now abundant in many regions that once suffered shortages, such as Asia and Latin America. While poverty and hunger still exist, sometimes unrelated to food production, improved farming methods in the latter part of the 20th century reduced the very real threats of famine that prevailed at that time.

Modern intensive agriculture is characterised by high levels of “inputs” – chemical fertilisers, pesticides,

herbicides, water and non-renewable energy sources. Nitrogen consumption increased from two to 75 million tonnes a year in the last half of the 20th century and in the 1980s alone the use of pesticides increased by up to a third in some countries. This has helped produce a 7% increase per capita in food production for the world as a whole since the 1960s. The most dramatic increases were in Asia where production rose by around 40%, according to the Food and Agriculture Organisation.¹ Most of this – up to 90% in some regions – has been achieved through increased yields from high-cropping varieties rather than the use of previously uncultivated land.²

¹ Pretty, J. 1996. *Regenerating Agriculture: Policies and Practice for Sustainability and Self-Reliance*. Earthscan. London.

² *ibid.*

Farmers and others in the agriculture sector have helped secure food and fibre supplies for a fast-growing population, improved availability and substantially reduced the cost of nutrition in many parts of the world. This has produced considerable benefits for people and societies, not least in improved health and a better quality of life.

But such success has come at a cost, mainly to the environment, and in some parts of the world, to the vitality of rural communities. Such costs are not new in the history of agriculture. Farmers have always had to balance the demands of food production against the potential effects on the environment.

AGRICULTURAL PRESSURES



Pressures vary depending where you are in the world, but include:

Competition (eg from urbanisation) for productive land for growing food, fibre and other materials used by people. The World Bank says that the land available for agriculture per person has halved since 1961 and will halve again by 2050.

Decline in the growth rate of yields from current cereal varieties.

Erosion, which destroys productive agricultural land.

Decline of wildlife, threatened by farming methods that reduce and/or degrade habitats.

Declining water systems are being put under further pressure, from irrigation schemes where most of the water is lost, and polluting run-off from fertilisers and pesticides.

Deteriorating farming communities because of reduced job opportunities, falling prices for commodities and movement of people to cities.

Today there is growing concern throughout the world that modern farming methods are putting the environment and farming communities under strain. This could undermine the dramatic advances made over the last 50 years and hold back society's capacity to feed itself in the future.

It is widely agreed that such pressures could limit future growth in agricultural output, degrade the environment and weaken social networks in the countryside. The more intensive agricultural practices applied today do not appear to offer a truly sustainable future for agriculture. This concern is heightened by increasing interest among consumers about the safety of food, the methods of production used and their impacts.

It is these concerns, combined with the broader global debate on sustainable development and quality of life issues, that have led to renewed interest in the future of agriculture. Suggestions on ways forward have contributed to an intense debate on agriculture's future, centred on the best methods to feed a fast-rising population and ensuring regular supplies of goods produced by farms and plantations.

Many leading experts and institutions still argue strongly in favour of the high-input methods that characterised the Green Revolution. Others support a more tempered approach where the emphasis is on reducing inputs and regenerating the ecological systems on which agriculture relies. Discussions are complicated by the central role that agriculture plays in many societies, its history and deep cultural and political significance. This means that the debate is as much about social values and emotions as it is about science.

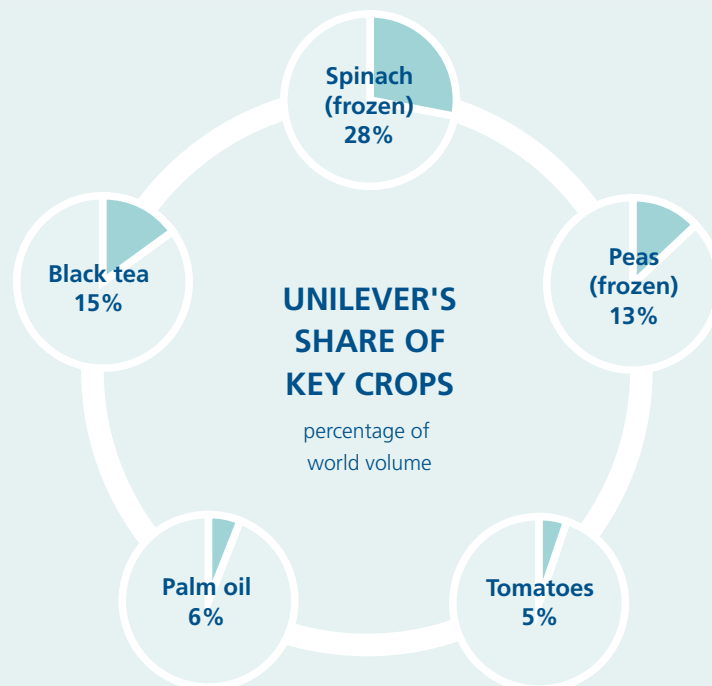
Unilever and agriculture

Agriculture provides more than two-thirds of the raw materials for Unilever's branded goods. For example, we process vegetable oils, such as sunflower, soy and rape seed, which are used in our spreads and dressings. We also produce palm oil as well as buying this oil on the open market. We are one of the world's largest producers of tomato-based sauces and pastes with many growers working under contract to us. We use vegetables such as peas and spinach in our frozen brands. Unilever is also a major buyer of agricultural goods for processing on world markets.

We have been involved for many years in the development of agricultural best practice (mainly

based on integrated farming principles) for crops including vegetables, tomatoes, palm oil and tea.

As a business we must ensure a sustainable supply of these materials if we are to continue to run a prosperous and healthy company in the long term. We have a clear responsibility to our stakeholders, especially our shareholders, employees and those with whom we do business. Above all, our position in the market presents us with an opportunity to contribute to the broader debate on the future of agriculture and a related responsibility to act on the trust placed in us by those who buy and consume our products.



FARMING TERMS



High input or intensive farming

High input/high output farming systems are common in developed countries. The systems are based on maximising yields while achieving a high level of food quality. Intensive production systems achieve high yields through the use of modern fertilisers, pesticides, herbicides and machinery. Developments in these technologies are continually emerging and intensive production systems tend to adapt to recent advances. However, the drive for high yield in the short term can result in long-term negative environmental effects.

Organic farming

There are a variety of definitions and interpretations of what constitutes “organic” production. Underlying principles include maintaining or increasing the fertility and biological activity of the soil without use of synthetic chemical inputs for fertilisation or pest control, and favouring the use of renewable over non-renewable energy sources. Acceptable methods of fertilisation and pest, disease and weed control are established in some national guidelines that define accepted organic production.³ Organic farming typically has lower yields and less of a negative environmental impact than intensive farming.

Traditional farming systems

Traditional farming systems are characterised by low inputs of capital intensive resources such as fertilisers, pesticides, and machinery. This approach is common in areas with abundant natural resources. Many of these systems which once existed in developed countries have been replaced by intensive farming techniques.

Integrated farming

Integrated farming describes a production method that makes judicious use of fertilisers and pesticides to maximise the productive capability of the land while minimising environmental impacts. The emphasis is on integrating technologies to produce management systems that use pest management techniques, targeted inputs of fertilisers, pesticides and irrigation, crop rotations, and monitoring of environmental performance. Integrated farming also includes approaches such as integrated pest management (IPM) and integrated crop management (ICM).

³ See, for example, EC standards under Regulation 2092/91.

BIOTECHNOLOGY AND ORGANIC FARMING: OUR APPROACH



That agriculture should be sustainable is not in dispute, although there is considerable debate about the best ways forward. Some argue that the use of biotechnology in developing new varieties of crops is essential, others favour organic farming systems that exclude the use of biotechnology and agrichemicals.

Understanding consumers is always Unilever’s first priority, because our business success depends on it. We carry out regular research into consumer attitudes and know that biotechnology and organic farming are two issues on which some of our consumers have strong views.

Organic farming is one approach to agriculture. Biotechnology is a particular technique for developing new varieties of crops. We would like to keep an open mind on the role either, or both, could play in sustainable agriculture.

We are engaging with a wide range of stakeholders to understand and agree the ecological, social and economic conditions that sustainable agriculture must meet. Based on those discussions we will develop standards that describe a sustainable agricultural system. Once we have set those standards we will have an objective basis for assessing the benefits and drawbacks of a wide range of agricultural methods and techniques, including organic farming and biotechnology.

Our approach is to focus on the underlying health and vitality of agricultural systems – in social, economic and environmental terms. Many techniques and approaches used in organic agriculture have the same focus and will meet our standards. Indeed, they have a vital role in sustainable agriculture.

Similarly, some applications of modern crop biotechnology appear to offer real benefits in social, economic and environmental terms. If, after careful evaluation against our standards, this proves to be the case then there is no reason why crops produced in this way should not also be an acceptable part of sustainable agriculture.

Sustainable Agriculture Initiative



We share many of the broader social and environmental concerns expressed about current agricultural practices and recognise that much needs to change if we are to guarantee a regular supply of farmed goods for our future operations.

But how can farming become more productive, protect the environment, preserve natural resources and contribute to rural communities, while using fewer agrichemicals and other inputs?

This question poses a huge challenge for all those involved in agriculture: farmers, scientists, experts, governments and businesses such as ours. The answer may lie in sustainable agriculture.

These issues are crucially important to our foods business and we have been looking for solutions for some time. We have consulted with experts around the world and engaged with people who have influence over our business and to whom we have a responsibility – our stakeholders.

We commissioned two studies in 1995. One⁴ captured the opinions of leading players and opinion formers among consumers, farmers, agribusinesses, the food industry, retailers and non-government organisations (NGOs) with an interest in the environment and sustainable development. The second study⁵ translated the concept of sustainability into a set of operational indicators based on expert conventions for use in Unilever practice. These two studies heavily influenced the approach we have taken with the Sustainable Agriculture Initiative.

The results of the studies also served as the baseline for a three-day workshop in 1998, which shaped the initiative. Participants were drawn worldwide from within the Company and among agriculture experts

⁴ Prepared by SustainAbility, London.

⁵ Prepared by the Institute for Applied Environmental Economics, TME, The Hague.

MISSION STATEMENT AND PRINCIPLES



Our purpose in Unilever is to meet the everyday needs of people everywhere — to anticipate the aspirations of our consumers and customers and to respond creatively and competitively with branded products and services, which raise the quality of life. Agriculture provides more than two-thirds of the raw materials for those branded products. Sustainable supply of these materials represents an essential element in the long-term health and prosperity of our businesses.

Agriculture is under environmental pressure for a number of reasons. There is growing competition for available land (for urban development, food and fibre production and nature conservation). Valuable arable land is also being lost through soil erosion and there is a growing shortage of fresh water in the world. Agriculture is utilising more and more water for irrigation and there is an increasing risk of pollution from nutrients (fertilisers and animal waste) and pesticides. This has prompted Unilever to develop an initiative on Sustainable Agriculture.

Unilever supports the widely held view that Sustainable Development requires alignment of economic growth, environmental protection and social progress. We have undertaken a worldwide stakeholder consultation before arriving at the following definition of Sustainable Agriculture:

Sustainable Agriculture is productive, competitive and efficient while at the same time protecting and improving the natural environment and conditions of the local communities.

Our approach to the sustainable development of agriculture is to support the following principles:

- Producing crops with high yield and nutritional quality to meet existing and future needs, while keeping resource inputs as low as possible.
- Ensuring that any adverse effects on soil fertility, water and air quality and biodiversity from agricultural activities are minimised and positive contributions are made where possible.
- Optimising the use of renewable resources while minimising the use of non-renewable resources.
- Sustainable agriculture should enable local communities to protect and improve their well-being and environments.

We will propose, discuss and agree a set of indicators for Sustainable Agriculture, with a range of relevant stakeholders, to measure and improve performance of agricultural systems in order to continuously add greater value to the partners and businesses in our supply chains and to our brands. We will support and stimulate general agreement on application of superior practices through partnerships and/or independent certification of supply chains. This will be embedded in our general efforts towards free market place pricing for all inputs and outputs. In this way we will ensure that we deliver against our purpose: to add continuously to the quality of life of our consumers.

We will start by testing our ideas on a limited number of crops, strategic to Unilever, over which we can exert some direct influence.

Rotterdam, December 1998

from various universities. We have, in particular, benefited from the support of Professor Jules Pretty of the University of Essex (see page 12).

The workshop also led to:

- The development of a mission statement, including a definition of sustainable agriculture (see page 12)
- The definition of four principles of sustainable agriculture (see box above)
- Identification of 10 broad indicators of sustainability in agriculture (see box, page 11)

- Choice of five crops that are significant to Unilever and through which the indicators will be refined and tested.

Developing self-sustaining learning processes

By adopting the principles outlined in the mission statement, we are likely to move away from so-called “intensive” agriculture. Any form of sustainable agriculture must be based on a holistic approach and be capable of continuing to meet the nutritional needs of an expanding world population, many of whom are enjoying rising levels of disposable income, with the resulting shifts in buying habits.

The challenge of sustainable agriculture is to combine the latest scientific views on all aspects of agronomy with empirical and sometimes traditional knowledge on issues such as pest management and crop rotation. Those agriculture principles and practices are the basis of the integrated farming approach that we see as the starting point for putting agriculture on a more sustainable footing. At the same time we must not neglect the social impacts of agriculture.

In some cases we have been working for over 30 years with farmers to develop agricultural best practice guidelines that define soil preparation, fertilisation regimes, harvesting and other activities – aimed at reducing environmental impact, ensuring product quality and maximising crop yield.

We want to move forward with this body of knowledge as the basis of our approach, stimulating continuous improvement in practices and working with the farming community through participative learning. In this way, the learning process itself (which will have to continue once outside involvement has stopped) can be sustained.

We do not want our agricultural suppliers to become dependent on our input of knowledge and expertise. On the contrary, we want to support them in setting up self-sustaining consulting mechanisms aimed at encouraging farmers to find solutions themselves.

Our best chance of progress is to involve farmers and other stakeholders in this process. We need to find a way that will offer them additional opportunities to improve their crops, protect the environment and use natural resources effectively, without putting them at a competitive disadvantage.

As facilitators in this process of continuous improvement, we need to make it measurable. We

must be able to set priorities, make progress visible and communicate the results. Indicators and measurement parameters are essential to progress.

Developing indicators and measurement parameters

Our Agricultural Best Practice guidelines form a solid basis from which to start. Where necessary, we will extend the guidelines to cover integrated crop management (ICM) and integrated pest management (IPM) principles. From there on, we intend to work towards Sustainable Agriculture Standards.

Agreeing indicators (see page 11) is one of the first major steps we have taken to establish criteria for sustainable agriculture. We have started to specify measurement parameters within each indicator and begun to test them in the field, working with those who produce our key crops: spinach, peas, tomatoes, palm oil and tea (see next section). These pilot projects were chosen because the crops are essential to our products and because we also have a degree of control over their production.

We have established a dialogue with the farmers who are under contract to provide Unilever with some of these crops. The exchange of information with Unilever is an important element in understanding and improving the performance of agricultural systems.

Role of the market

We feel it is the market that holds the key to progress. If the correct information is provided to market players – in this case, producers, buyers, processors and consumers – then the markets themselves, rather than new regulation, can encourage conformance with the desired production methods.



1 Soil fertility/health

Soil is an absolute fundamental to agricultural systems. A rich soil ecosystem improves the performance of crops and livestock. Sustainable agriculture practices can improve the quality of the soil's ecosystem.

Typical measurement parameters include: the number of beneficial organisms and soil organic carbon.

2 Soil loss

Erosion by wind and water can lead to soil losing its structure and organic matter, which reduces the main asset of the agricultural system. Sustainable agriculture practices work to reduce soil erosion.

Typical parameters include: soil cover index (percentage of time the soil is covered by crop), soil erosion.

3 Nutrients

Both crops and livestock need a broad balance of nutrients. Some of these, such as nitrogen, can be created locally but others have to be brought in from other sources. Nutrients are lost through activities such as cropping, erosion and emissions to air. Sustainable agriculture practices can enhance locally produced nutrients and reduce losses.

Typical parameters: amount of inorganic nitrogen/phosphate/potassium applied, balance of nitrogen/phosphate/potassium over crop rotations.

4 Pest management

A small but significant proportion of pesticides used on crops and livestock can escape to the environment, harming wildlife and accumulating in foods. Sustainable agriculture practices can substitute natural controls for some pesticides, so reducing dependence on externally introduced substances.

Typical parameters: amount and type of pesticides (active ingredient) applied.

5 Biodiversity

Agriculture has shaped many ecosystems in the world, and the diversity of biological systems (biodiversity) can be improved or reduced by agricultural practices. Sustainable agricultural practices can help improve biodiversity. It can do this by "greening the middle" of the fields as well as "greening the edge".

Typical parameters include: level of biodiversity on site, habitat for natural predators, cross-boundary effects.

6 Product value

This is the measure of the desired outputs of an agricultural system. Sustainable agriculture practices should be able to

maintain or improve the value of the product and reduce wastage between the field and processing.

Typical parameters include: total value of the produce per ha, nutritional value (including minerals, ratio of solid waste re-used/recycled to solid waste disposed to landfill).

7 Energy

Energy in the form of sunlight is absolutely essential to plants and animals, but agriculture also uses energy from non-renewable sources, such as tractors for ploughing and the energy needed to make agrichemicals. Sustainable agriculture can improve the balance of energy inputs and outputs, and ensure that the process produces more energy than it uses.

Typical parameters include: total energy input/total energy output, ratio of renewable to non-renewable energy inputs.

8 Water

Some farming techniques require irrigation and other practices can lead to the pollution of ground and surface waters. Sustainable agriculture practices ensure that water is conserved and possible pollutants are carefully controlled to reduce the risks of pollution.

Typical parameters are: amount of water used, leaching and run-off of nutrients to surface waters.

9 Social/human capital

Collective action, the sharing of knowledge and the intensity of local social networks help ensure that natural resources are conserved for future use. Some conventional farming techniques have undermined local networks and located knowledge outside the farming communities. Sustainable agriculture works to improve both social and human capital. The prime responsibility for their livelihoods should remain with the local community.

Typical parameters: group dynamics/organisational density of rural community, rate of innovation.

10 Local economy

Sourcing agricultural inputs (such as goods, labour and services) locally helps to sustain local businesses and livelihoods. Sustainable agriculture practices make the best use of local resources and help to improve the efficiency of the local economy.

Typical parameters: amount of money/profit spent locally, employment level in the local community.

USING CONSUMER POWER TO CONSERVE FISHERIES



Following an initiative taken by Unilever and the Worldwide Fund for Nature (WWF) the Marine Stewardship Council (MSC) (www.msc.org) was established in 1998 as a global independent organisation under the chairmanship of John Gummer, a former UK Environment Secretary. It is seeking to harness the power of consumers, businesses, governments and international institutions to secure the future of fish stocks.

After wide-ranging international consultation, the MSC compiled a set of principles and criteria for sustainable fishing. Fisheries can volunteer to be assessed against this standard. Independent bodies accredited by the MSC will certify whether a fishery complies with the sustainability standard. Companies that process or sell fish from these fisheries will be able to carry the MSC logo on their fish products. Consumers will be able to buy clearly labelled fish in the knowledge that they come from sustainable sources.

Fish products bearing the MSC label are starting to become available.

Our ultimate objective is to work with a wide range of different partners – starting locally – to create market mechanisms that will foster sustainable agriculture, if possible without regulation. These mechanisms should stimulate improvement and the sharing of efficiencies along the supply chain. This in turn will raise quality standards so that consumer needs and expectations are met. A body of knowledge already exists on such a market-based approach. The EU eco-labelling scheme for a variety of products and the certification scheme for organic food products are obvious examples. Unilever, too, has direct experience through its involvement in the Marine Stewardship Council (see box above).

Professor Jules Pretty

is Director of the Centre for Environment and Society at the University of Essex in the UK. An acknowledged world expert on agriculture systems, Prof. Pretty advises Unilever on its Sustainable Agriculture Initiative and meets with the Unilever Sustainable Agriculture Steering Group several times a year.

He is a founding member of the Agricultural Reform Group and the Neighbourhood Think Tank; a trustee for the Farmers World Network and The Pesticides Trust; editorial adviser to various journals; member of the Institute of Biology and British Agricultural History Society; adviser to the UK government on social and environmental development; and an adviser to the corporate sector. He was appointed to the UK government's Advisory Committee on Releases to the Environment (ACRE) in 1999.

Prof. Pretty presented the BBC Radio 4 mini-series *Ploughing Eden* in 1999. His most recent books are: *The Living Land: Agriculture, Food and Community Regeneration in Rural Europe* (1998); *Regenerating Agriculture: Policies and Practice for Sustainability and Self-Reliance* (1995).

WHAT WE MEAN BY SUSTAINABLE AGRICULTURE



In our definition of sustainable agriculture, land is managed so as to guarantee continuing high yields of agricultural produce over time, while minimising inputs and costs in terms of fossil energy, fertilisers, pesticides, herbicides or other auxiliaries. According to our definition, it is not sustainable to keep yields high by continuously increasing inputs into the process, while eroding the inherent productivity of the soil.

In Unilever's view sustainable agriculture is characterised by a combination of sound economics, environmental protection and social progress. Sustainable agriculture systems combine targeted technological and human capital inputs to produce crops with high yield and nutritional quality while keeping resource inputs as low as possible.

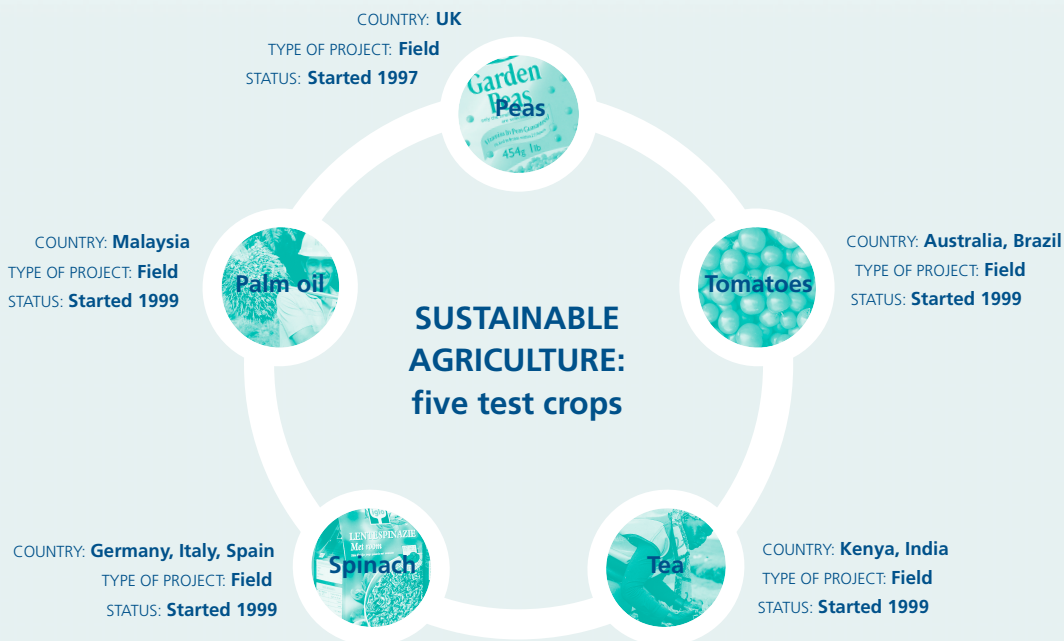
This is achieved by minimising adverse effects of agriculture on soil fertility, water and air quality and biodiversity, and making positive contribution where possible. Furthermore, sustainable agriculture aims to optimise the use of renewable resources while minimising the use of non-renewable resources. Sustainable agriculture should also enable local communities to protect and improve their well-being and environments.

Turning theory into practice

Our Agricultural Best Practice guidelines are being extended, where necessary, to include ICM and IPM principles. Separately, five projects running in different parts of the world are testing an approach to sustainable agriculture that has emerged from our theoretical work.

At this early stage in our progress, we are placing particular emphasis on the environment and improving our understanding of ecological sustainability in agriculture. Without this foundation, we cannot start to address the interrelated social and economic factors. This emphasis is embodied in the sustainability indicators we have chosen to test in the field.

The field trials are developing and testing the parameters to provide measurements for each of the 10 sustainable agriculture indicators (page 11). This is being done with the active involvement of farmers, local communities and other stakeholders. These groups are providing invaluable input on how to use our sustainability indicators to improve



OUR EXPERIENCE WITH THESE CROPS WILL CONTRIBUTE TO OUR EXISTING KNOWLEDGE OF THEIR SUPPLY CHAINS. IF THE PILOTS ARE SUCCESSFUL, WE HOPE TO WORK WITH OTHERS WHO HAVE GREATER KNOWLEDGE OF ADDITIONAL CROPS IMPORTANT TO UNILEVER, SUCH AS SOYA AND RAPE SEED.

the performance of agriculture systems. We intend to find solutions that local participants favour, so that self-sustaining learning processes are encouraged. This work will contribute to the definition of standards.

We are making good progress in the five crops chosen. Conditions, of course, vary between regions

and crops. Here are two examples from different perspectives: pea growing in the UK and tea plantations in Kenya. The peas project, begun in 1997, is by far the most advanced of the pilots and offers an insight into the collaborative efforts behind the projects.

PROGRESS WITH PEAS



Consulting widely is an essential part of the Sustainable Agriculture Project at Birds Eye Wall's (BEW), the Unilever company running the project with growers in the UK.

BEW's first step was to work with its advisers to develop a discussion paper based on the proposed indicators. The paper was sent to opinion formers in the farming community and those working on sustainable agriculture in academia and government. This was done to ensure that proposals were realistic and also to identify partners who could help provide data for the parameters specified within the indicators.

Twenty-one farmers from among more than 500 growers who work with BEW were selected to participate in the pilot. The choice was determined by the need to have representative soil types and at least one grower from each group in the co-op system used to supply BEW's factories.

Actual measurements within the indicators are wide-ranging and include:

- Activity levels in soil microfauna – worms and beetles – are monitored.
- Energy inputs (mainly diesel) are recorded.
- A bird nesting survey – an element of biodiversity monitoring – has identified the importance of field margins.
- Activity within local economies is monitored, as is communication between farmers, BEW and consumers.

Partners play a key role producing data and also interpreting and suggesting ways of improving scores. BEW finds the project is helping to improve its relationships with the farmers, whose co-operation is integral to the success of the pilot and subsequent standards.



OUR PEA PARTNERS



Birds Eye Wall's has been producing high-quality products for over 50 years in partnership with its growers. To complement this successful formula, the company is now working with a range of organisations who are contributing to its sustainable agriculture project. These include:

- Forum for the Future, a UK charity founded in 1996 by leading environmentalists with the purpose of taking a positive, solution-oriented approach to the challenge of sustainable development. The Forum is providing external advice on the best practice for sustainability.
- ADAS, an independent consultancy with more than 50 years experience of communicating and working with the rural community. ADAS is involved in the assessment and monitoring of some of the indicators.
- Soil Survey and Land Research Centre maps and monitors the soil resources of England and Wales. The organisation produced a report on the likelihood of nutrients and pesticides leaching in the growing areas – an essential criterion needed before approaching growers for their participation.
- Environment Agency, the government watchdog and enforcer. It has supplied data on pesticides and nitrates in the growing areas.
- The Wildlife Trusts, a network of 46 local trusts and 52 urban groups working for wildlife in town and country. The trusts are helping to measure biodiversity.
- British Trust for Ornithology, an organisation of professional and volunteer ornithologists and ecologists. The Trust is helping to measure key components of the biodiversity indicators in relation to birds.
- Centre for Agriculture and Environment, a Dutch non-profit foundation that promotes sustainable agriculture. The Centre is helping to test and monitor sustainability indicators on energy balance.
- University of Essex, Centre for Environment and Society, a trans-disciplinary research centre, has advised on the development of sustainability indicators.

PROGRESS IN TEA



Most tea bushes in commercial production are those that were planted when the plantations were first established – many are over 100 years old. This longevity has encouraged the adoption of a wide range of conservation measures, but there is scope for improvement and the wider adoption of best practice.

Since early 1999, the Brooke Bond Tea estates in Kericho, Kenya, have been running a pilot study to test the indicators. The specific indicator set has been developed with the initial emphasis on agricultural indicators, such as soil conditions, pest management and biodiversity. Early results confirm the contention that the levels of organic matter are well sustained by current practices and good pest management is able to avoid the use of pesticides on the tea crop. Although tea is a monoculture, the retention of over 10% of the property as riverine forest strips and conservation areas is supporting natural biodiversity.

Energy consumption is largely met from the estate's own hydro schemes and fuel wood plantations. The measurement of social capital and economic contribution is more difficult to benchmark but the tea industry is at the heart of both the local and national economy, and tea estates support a wide infrastructure in respect of medical care, education and general welfare.

The project is being substantially driven by the Brooke Bond agricultural team in the initial stages, but the findings will be used to develop guidelines which will be offered as an example of best practice to others in the industry. If others agree, this platform could be used to encourage the many Unilever suppliers, from large estates to small-holders, to adopt sustainable practices.



Looking forward

The pilot projects on sustainable agriculture will eventually be followed by the definition of standards for sustainable agriculture and the development of market mechanisms to allow buyers and consumers to express their preferences.



We will welcome a recognised position in the market for the products of sustainable agriculture. This means an approach to agriculture, using proven technologies, that works to align economic principles with environmental protection and social progress. The application of recognised indicators measures will help to make this process transparent.

We wish to contribute to the work needed to produce such standards. We know that the standards will need endorsement by a wide variety of experts and stakeholders, including organisations such as Food and Agriculture Organisation, the World Bank, UN Environment Programme and interested NGOs.

The emerging standards need to be driven forward and, in time, to become commonplace. We will play our part in trying to make this happen. Besides the work described in this booklet, we have, for example,

started to talk to growers who supply the markets from which we obtain supplies – such as tea and palm oil – about the mutual benefits of sharing information on best practice. We also need their co-operation in gathering additional data to test the practicality of our suggested indicators. With more data we can start the process of stimulating the market towards sustainable agriculture standards and in this way increase the volumes produced according to these practices.

Should we succeed in developing such standards, we believe that market mechanisms will follow, allowing raw material buyers and consumers to express their preferences. Where such mechanisms prove effective, companies such as ours will be able increasingly to base their sourcing policies on the underlying standards and help to promote more sustainable agricultural practices.

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