



Organic farming

*A contribution to sustainable poverty
alleviation in developing countries?*

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Abbreviations and explanation of terminology

Agro-biodiversity	Biological diversity in agriculture (related to plants, animals and habitats)
Income-elastic good	A good the demand of which rises as consumer income increases (e.g. expensive ready-to-serve meals as opposed to raw potatoes)
Codex Alimentarius	Developed as a common instrument of FAO und WHO in 1962 with the aim of protecting consumer health and ensuring honest practices in food international trading by working out international food standards
FAO	Food and Agriculture Organisation (UNO)
GLASOD	Global Assessment of Soil Degradation
Group certification	(Organic) certification of a group of producers as a unit based on inspecting samples and on internal self-control
IFAD	International Fund for Agricultural Development
IFOAM	International Federation of Organic Agriculture Movement
ILO	International Labour Organisation
Comparative advantage	A producer's cost advantage when producing a certain good (owing to lower relative production costs)
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
Opportunity costs	Costs arising through forfeited income if a scarce good has been allocated to an alternative use (e.g. the opportunity costs of studying correspond to the income one would be able to earn on the labour market as a school-leaver in the same period)
Protectionism	Economic protection of a domestic market against foreign markets via customs duties, subsidies for domestic production, etc.
Standards	Controllable, binding minimum norms
Subsistence economy	An economy based mainly on self-supply (but not excluding the exchange of goods and services)
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program

Introduction

The World Summit on Sustainable Development in September 2002 prompted Naturland, an organic farming association operating at international level, to compile a policy paper on the issue of "Sustainability and Organic Farming". When these "Gräfeltinger Thesen" (the Gräfeltingen propositions) were submitted to the environmental associations and development organisations for joint signing, there were critical remarks among the associations. One was not willing to grant organic farming its claim to being the most sustainable form of land cultivation without any comment or criticism whatsoever.

This was the starting point of an intensive discussion among the associations in Germany. Early in December 2003, Naturland, Evangelischer Entwicklungsdienst (EED), Forum Umwelt und Entwicklung, Misereor, Naturschutzbund (NABU), Brot für die Welt and WWF-Deutschland organised a congress on the topic of "organic farming - a contribution to the sustainable alleviation of hunger in developing countries?", which was followed by a panel debate in the context of the Nuremberg Biofach specialist trade fair in February 2004. Both events were aimed at bringing the representatives of various interest groups together to have joint discussions on

- what role organic farming can perform in attaining food security in the countries of the South,
- what the prospects of smallholders are to participate in the organic farming system, and
- how the system of certification can be adapted to the needs of smallholders in the South.

Organic farming is above all defined by production method principles aimed at a sustainable cultivation of farmland and food production. At the forefront of considerations is a holistic, eco-systematic approach and the preservation and enhancement of soil fertility. This is the fundamental difference between organic farming and "integrated plant protection" or other agricultural production methods.

However, hunger and poverty are not only caused by poor agricultural production standards. Unfair land distribution, inequalities in access to resources and the degradation of natural resources are just a few of the major reasons for hunger. Against this background, is it possible for organic farming to make any contribution to poverty reduction at all?

This publication takes a look at the above issue from various angles. The aspect of declining yields in connection with a conversion to organic farming is given just as much attention as the problems of certification, the development of standards, and exports. The impact that organic farming has on the protection of the environment and biodiversity in the countries of the South represents a further issue.

The potentials that organic farming bears in the developing countries include the areas of awareness raising, dissemination of knowledge and political mobilisation of the population. Knowledge of how ecological aspects relate to one another enables peasants to rely more on their own analytical abilities again after the latter having been taken away from them by the Green Revolution methods. Traditional knowledge and a better control over means of production like soil and

seed are held in greater esteem thanks to the implementation of organic production systems. A definition of organic farming as stipulated in EC Regulation 2092/91 via control and certification does not do justice to the diversity of potentials that organic farming offers, and in certain circumstances, it can have a negative impact on poverty reduction:

- if it does not address the locational, socio-economic or ecological peculiarities or demands in the countries of the South;
- if it is restricted to producing high-price luxury goods for niche markets;
- if “environmental compatibility” is too strongly determined by the western concept of being “free of chemicals”.

The environmental, development and farming organisations agree that, in poor countries too, there is no alternative to the ecologisation of agriculture. Only an agriculture that depends less on external means of production and makes sustainable use of resources can combat hunger and protect the environment.

Via co-operation, the environmental, development and organic farming organisations can benefit from each other and develop synergies. Already, there are many promising approaches to collaboration. What counts now is to extend and multiply them.

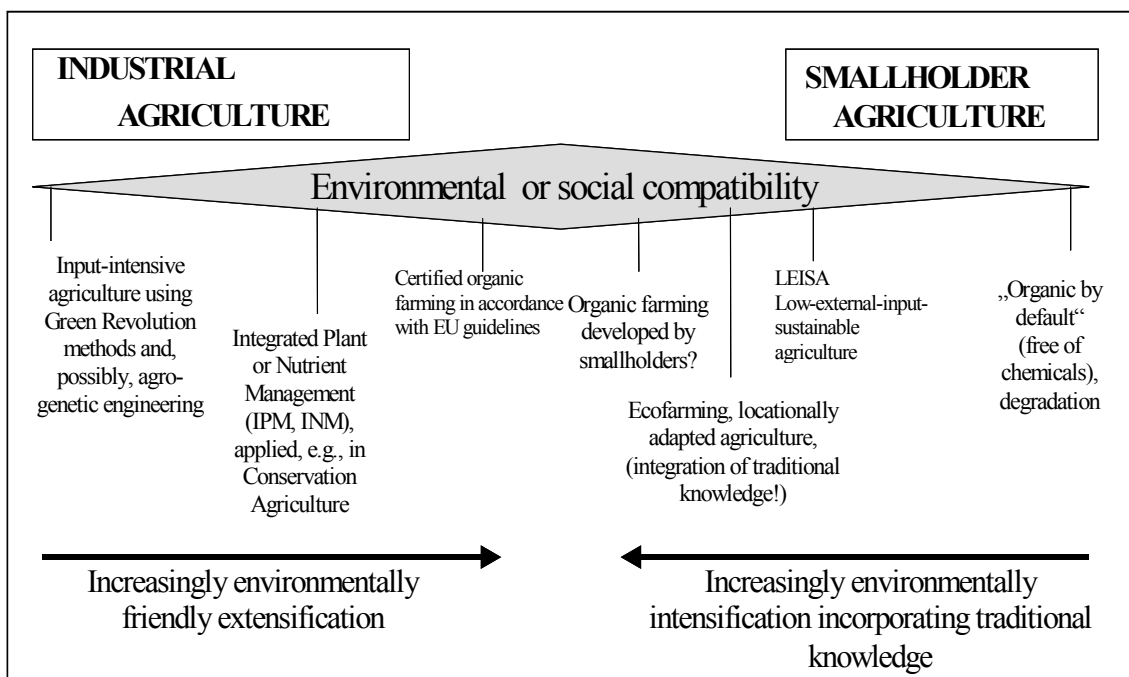
The organisations involved will make an effort to see to it that policy papers are not the final word but that the results are translated into action at local level.

1. Which sustainable development approaches are predominant in global agriculture?

In addition to certified organic farming, there are numerous other concepts for agricultural production in the tropics. They range from the intensive use of “modern” technologies such as agro-genetic engineering to the various sustainable agriculture approaches. In a simplified manner, the development of

organic farming methods can be viewed as a search process from two sides: an increasingly lower use of chemical inputs in modern agriculture on the one hand and an integration of modern ecological insights into the traditional range of methods on the other, as illustrated in the following diagram (see Fig. 1)¹.

Fig. 1: Simplified classification of different types of farming regarding environmental compatibility



¹ Note that this is a highly simplified attempt to classify concepts and that it cannot do sufficient justice to the fluid transitions between the different types of farming applied in practice.

The various types of **Sustainable Agriculture** have emerged as a counter-movement to the technologies of the Green Revolution. Here, the methods of Integrated Pest Management (IPM) and Integrated Nutrient Management (INM), which are, for example, used in Conservation Agriculture, ought to be mentioned. Conservation Agriculture is referred to by the FAO as a method incorporating an integrated management of soil, water and agricultural inputs. Its three most important principles are permanent soil cover, minimum interference with soil flora and fauna thanks to zero tillage and crop rotation². But usually, it involves increased herbicide input. So a number of environmental advantages are offset by greater use of chemicals.

In a nutshell, the concepts of Integrated Farming incorporate "as much chemistry as necessary and as little as possible", but they differ from Sustainable Agriculture in the narrower sense (which, in the following, is referred to with capitalised initials). In the eighties, Sustainable Farming emerged as an alternative in the South to the one-sided technology transfer of high-yield seed and external input in a North-South direction³.

Sustainable Agriculture is a generic term that also encompasses Organic Farming. By **Organic Farming**, we mean all approaches based on local technology development that supplement existing know-how among farmers regarding local environmental factors with scientific insights. Here, the application of local resources and traditional knowledge is given special consideration. The "Ecofarming" concept suggested by Kurt Egger (1979) and "locally adapted land use" in the sense of Kotschi/ Bread for the World/ Misereor are important contributions to the development of a concept of Organic (and Sustainable)

² For a brief description, see http://www.fao.org/wssd/SARD/sard_gap/DOCs/CA_leaflet.pdf.

³ See Kotschi (1998).

Farming in the South. "Low-external-input-and-sustainable-agriculture" (LEISA) is another variation, albeit one that does not entirely rule out the use of pesticides and synthetic fertiliser. It is intermittent between "only" sustainable and "still" organic.

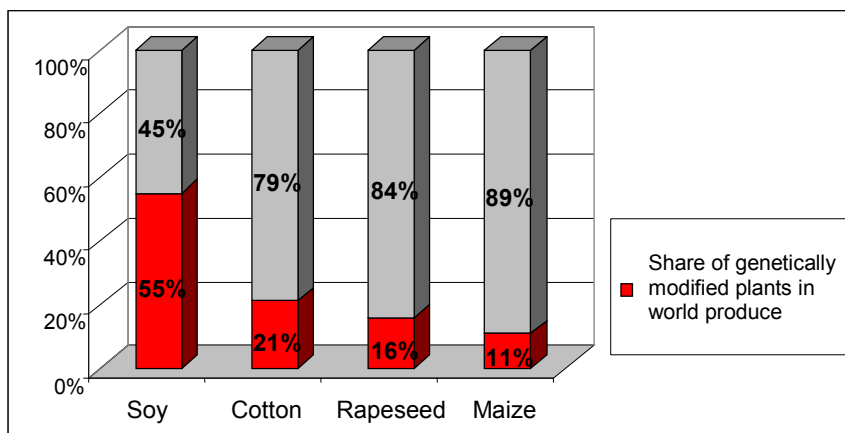
The input-intensive cultivation types of the **Green Revolution**, which was initiated in the sixties by the international agricultural research centres, are on the outer opposite side of the diagram. Here, the emphasis was on introducing so-called high-yielding maize, wheat or rice varieties in the countries of the South, and the aim was to increase agricultural output. The yield of these varieties will only be higher in comparison to traditional land races if intensive use is simultaneously made of artificial irrigation, fertiliser and pesticides - and this costs a lot of money, which is why the Green Revolution coincided with accelerated structural readjustment in agriculture. Initially, there were enormous increases in yield in the good farming locations, especially in Asia. But by and by, the high-yield strains had to be crossed with more suitably adapted local varieties in order to maintain yield levels in the long run. In retrospect, with its massive interventions in sensitive agro-ecological systems, the Green Revolution has caused many environmental and social problems.

The same actors who promoted the Green Revolution are now calling for the "New Green Revolution". The agricultural research centres, the private corporations and the intellectual mentors are the same ones. The new hopes are those that have arisen from new types of gene transfer engineering. Environmental and development campaigners fear that a further spread of this **agro-genetic engineering** could result in negative impacts similar to those of the first Green Revolution as well as creating new problems. Agro-genetic engineering is the application of genetic engineering methods in plant breeding and the use of genetically modified plants in agriculture. Fears of cross-

breeding, uncontrolled transfer and unintentional side-effects of the genes introduced into organisms make this method particularly controversial. Currently, its application is above all restricted to the modification of individual genes in order to develop resistance to herbicides, insects, fungi, bacteria, viruses or a modification in the composition of contents in useful plants. Thus in its essence, genetic

engineering of organisms clashes with the concept of organic farming, in which the ecosystem with its diversity of interactions is to be regarded as a whole. In order to fully exploit the potentials and limit their risks, the distributors of seed and the government impose conditions on the users that no longer give any consideration to the existing traditional knowledge among the peasants.

Fig. 2: Share of genetically modified plants among the world produce of some cultivated plants (Source: modified, taken from James, 2003)



The most important genetically modified cultures include soy, cotton, rapeseed and maize (see Fig. 2). Among these crops, the share of genetically modified plants is between eleven and 55 percent. Examples of the application of agro-genetic engineering are the herbicide-resistant "Roundup Ready" soy bean, fungus-resistant rapeseed, insect-resistant "Bt-maize" and a modified fatty-acid composition of soy oil⁴. From 1996 to 2004, area cultivated world-wide for genetically modified plants rose forty-seven-fold to a current level of over 81 million hectares⁵.

CONCLUSION

Agricultural development can no longer do without sustainability. The different approaches to Sustainable Agricul-

ture focus on 1. giving greater consideration to the environment in agriculture, 2. reducing external input (but not generally rejecting chemicals in all cases), and 3. usually, an integration of local elements⁶. The search processes originating from modern or traditional agriculture only result in a single strand towards a convergence heading for scientific organic farming. The chief strand of "modernisation efforts" tends to be heading for a New Green Revolution, both among the smallholders in the South and the highly rationalised farms in the North. Their high-tech environmental approach is competing with the low-tech approach of organic farming for the attainment of the goal of feeding the world in a more sustainable manner.

⁴ For further information, see <http://www.gruenegen technik.de>

⁵ See James (2005).

⁶ See Misereor (1995)

2. What do we mean by „organic farming“?

Organic farming is related to the concepts of Sustainable Agriculture, especially with regard to the reduction of external inputs, as an attempt to achieve more environmental justice. Historically, it did not originate from the universities but was developed by farmers and organisations supporting this type of agriculture in the industrialised countries as an explicit counter-movement to input-intensive, high-tech agriculture. Organic farming relies on natural cycles. At the centre of this agricultural system is the maintenance and enhancement of soil fertility and the general rejection of synthetic fertiliser and pesticides. The UN Development Programme regards it as the ecologically most consistent development of all those approaches seeking sufficient agricultural production while simultaneously conserving natural resources⁷.

But what exactly is behind this concept? The Codex Alimentarius of the FAO and the WHO describes organic farming on the basis of an environmental management system achieving sustainable productivity by promoting the ecosystem. Pest and weed control is maintained via various individual methods and through the mutual interdependence of the habitats of soil organisms and nutrients, plants, animals and human beings⁸. Thus they represent a package of individual measures the entirety of which is aimed

at the following **goals**⁹:

- a sufficiently high level of productivity,
- compatibility of cultivation with the natural cycles of the production system as a whole,
- maintaining and increasing the long-term fertility and biological activity of the soil,
- maintaining and increasing natural diversity and agro-biodiversity,
- maximum possible use of renewable resources,
- creation of a harmonic balance between crops and animal husbandry,
- creation of conditions in which animals are kept that correspond to their natural behaviour,
- protection of, and learning from, indigenous knowledge and traditional management systems.

The concept of organic farming stresses the integration of crop farming and animal husbandry in ensuring an optimum nutrient cycle.

Organic farming is organised worldwide in IFOAM, the International Federation of Organic Agriculture Movements. In accordance with the IFOAM standards, it not only pursues agricultural and ecological principles but also aims at food

⁷ See UNDP (1992).

⁸ See FAO/ WHO Codex Alimentarius Commission (2001), www.codexalimentarius.net.

⁹ The complete list is contained in the “Principle Aims of Organic Production and Processing” of the IFOAM “Basic Standards for Organic Agriculture and Processing” of (2002).

security and social justice, high demands on food quality and health as well as the integration of local knowledge. These basic principles apply equally to the tropics and to the temperate zones, although concrete farming methods may vary considerably depending on climate zones and agricultural structures¹⁰. Certification was introduced to make organic farming distinguishable from other types of sustainable farming. It is particularly important when premium prices can be scored thanks to consumers holding this type of agricultural produce in especially high esteem.

“Quasi-organic” or just “without chemistry”?

In non-certified systems, the boundary gets all too easily blurred between organic approaches, systematic concepts of Sustainable Agriculture and slash-and-burn farming that does not use chemicals but can nevertheless be extremely hostile to the environment because of soil degradation. The term “organic by default” refers small-scale producers without access to modern farming input who are

“organic” for lack of any alternative. Organic means an agro-ecological knowledge approach in its own right that requires conscious, specialist action.

However, the term “Organic Farming” is not restricted to certified organic farming. At the BioFach Congress 2004 in Nuremberg, Gunnar Rundgren, IFOAM, stated that “a farmer is an organic farmer because he cultivates his fields organically and not because he has been certified”. (Certification as a system is dealt with in a separate chapter independently of the mode of production; see Chapter 9.)

CONCLUSION

Organic Farming is a type of sustainable land use that works entirely without synthetic fertiliser and chemical pesticides and systematically enhances the agro-ecological system. Via standardisation and quality seals, certified organic farming can be clearly distinguished from other sustainable types of farming. However, it is a special type among all types of Organic Farming.

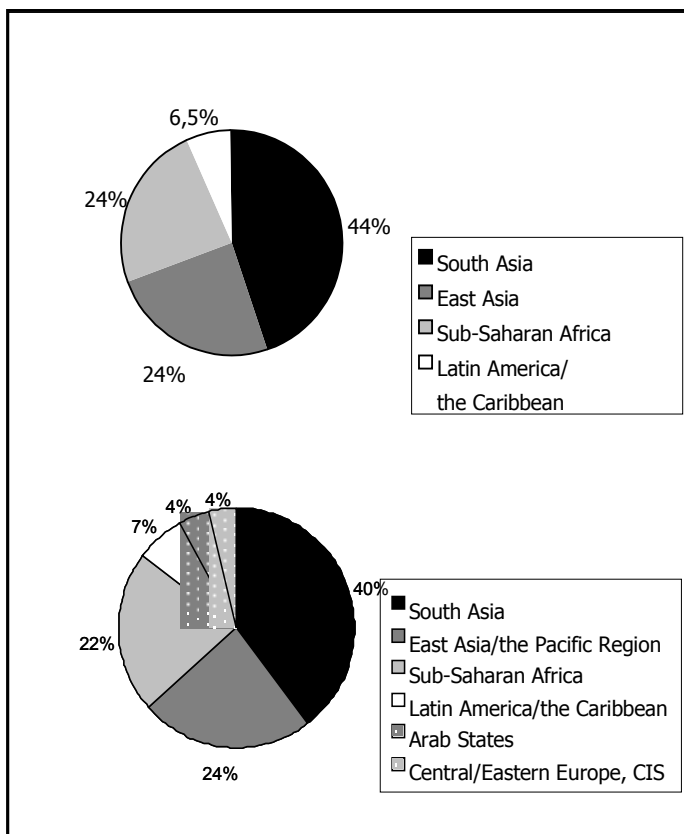
¹⁰ See Stolze et al. (2000).

3. Who are the poor, and what role does farming play for them?

In the UN Millennium Development Goals and via the declarations of the FAO's second World Food Summit, the international community of states has committed itself to halving the number of hungry and extremely poor people between 1990 and 2015. Hunger means insufficient food. Poverty means that the basic needs (food, clean drinking water,

clothes, health, education, etc.) are only inadequately met and that people are restricted regarding their social development and social participation. Usually, hunger and poverty are closely related and go hand in hand. People earn the means to cover their basic needs either via their own production or by wage labour. In order to produce food themselves, people require access to the productive resources, above all land and water, but also input, credit and information. This is why people's participation in social decision-making processes and the control over natural resources and the production process form the basis of poverty reduction.

Fig. 3: Distribution of "dollar poor" (above) and undernourished people (below) world-wide (Source: IFAD, 2001 and UNDP, 2003)



The majority of the world's hungry live in rural areas. However, the number of hungry people in the cities is increasing rapidly as well, especially in Latin America. In African and Asian countries, it is mainly smallholder families and landless people who are affected by hunger. This also roughly corresponds to the distribution of the "dollar poor" (with less than 1 US\$ income a day): 75 percent of the 1.2 billion poor world-wide live in rural areas, and two thirds of these are in South and East Asia, while a quarter are in Sub-Saharan Africa (see Fig. 3 below). Accordingly, one important political measure contained in the Millennium Development Goal Action plan is to increase the productivity of smallholders in marginal locations¹¹.

¹¹ See UNDP (2003).

Among the rural population affected by poverty, a simplified distinction can be made between the following groups regarding their specific problems:

- landless poor (farm labourers),
- poor people with access to land in marginal areas,
- poor people with access to land in medium and high-yielding locations,
- professional groups living on natural resources (e.g. fishers, pastoralists, gatherers).

In Latin America, the group of landless people and day labourers constitute the largest group of rural poor, whereas in Africa, the group of smallholders is predominant among the rural poor with secure rights of land use. However, an IFAD survey on rural poverty demonstrates that more than two thirds of the 900 million rural poor live in marginal locations, i.e. in disadvantaged agricultural regions. For them, hunger and poverty are crucially linked to the poor quality of their productive resources, i.e. a lack of fertile soil and irrigation facilities, as well as to these regions being neglected regarding the provision of infrastructure and (social) services. Such regions require investments so that their existing potential can be tapped step by step, in many cases as well as measures to integrate them into the national economies.

At the same time, almost a third of the rural poor live in regions with a medium to high agricultural potential¹². Their poverty is the result of restricted access to land and water, but also of obstacles to accessing markets, credit, knowledge and technology without which they are unable to make use of the potential of land resources. Many of them have lost their land and earn their living as day labourers; usually, their employment options are restricted to a certain agricultural season.

¹² See IFAD (2001).

What role does agriculture play for the rural poor?

Accounting for about 60 to 75 percent of overall employment, agriculture is the chief employer in rural regions. It is not only the landless who earn their living in agriculture, with wage labour in production, distribution or manufacture. Smallholders are also forced to secure their income with additional wage labour. In Africa, Asia and the Arab states, employment outside one's own agricultural undertaking provides the lion's share of family income nowadays¹³. In Latin America, too, an average of 40 percent of income is still earned in supplementary and secondary occupation¹⁴. In order to secure their survival, as a rule, the poor have to combine several sources of income and activities, with wage labour usually being very poorly paid and often being characterised by exploitative working conditions.

Combining different branches of business within agriculture or sideline activities help people to protect themselves against failed harvests and income fluctuations. Thus agriculture simultaneously serves the poor as an economic cushion against risks and to secure their food basis. The share of staple food per area of farmland that primary serves self-supplies for the families is 62 percent on average and may even account for up to 90 percent in poor countries such as Mozambique. Many rural households are far from able to cover their subsistence, so that half of money income is spent on food.

How does agriculture influence the ecosystem?

The conservation of natural resources in agricultural and forestry ecosystems directly interacts with the long-term poverty and food state of the group of smallholders in marginalised areas.

¹³ See IFAD (2001).

¹⁴ See Reardon et al. (2001).

According to the 1990 GLASOD survey¹⁵, two thirds of productive land in Sub-Saharan Africa is classified as degraded, 38 percent in Asia and as much as 74 percent in Central America. Here, crops also spread to marginal locations such as slopes at the expense of forests and pastureland. It is especially in these fragile agro-ecological systems that, as a result of deforestation, soil degradation is held to be one of the most urgent environmental problems. Soil degradation appears as erosion, compaction and salination of soil and, in the long term, as a loss of organic substances and micro-organisms. Poverty will often result in overcropping and overgrazing, which in turn lead to lower yields and further poverty. The consequences for people and the natural habitats are severe. As early as 1994, the UN Environment Programme registered a total of 25 million of so-called "environmental refugees" who had lost their livelihoods owing to degradation of the natural resources caused by nature and humans - half of them in Africa¹⁶.

The degraded areas cannot simply be evacuated for the purpose of environmental regeneration. The people living there continue to depend on land use. The agricultural sector is not only the cause of

many environmental and poverty problems, but it also provides the key to solve them. In this context, there is a conflict of aims between the designation of agriculturally poorly suited areas as protected areas and the continuation or introduction of their agricultural use, for example by applying environmentally friendly land use forms (such as agro-forestry systems) that conserve natural resources. In each case, poverty-oriented rural development on the basis of long-term conservation of natural resources is indispensable in such conditions. Measures have to be adapted to the special living conditions, interests and knowledge of the local farmers.

CONCLUSION

The majority of the world's poor live directly or indirectly on agriculture, so that strategies aimed at sustainable support for rural areas have to make a crucial contribution to combating hunger. Moreover, hunger and absolute poverty are, in the main, a phenomenon of marginal areas that are subject to a severe environmental threat. Here, raising productivity and environmental protection or the rehabilitation of habitats have to go hand in hand. There is hardly an alternative to attempting to achieve this with organic farming.

¹⁵ The Global Assessment of Soil Degradation (GLASOD) study was commissioned by the United Nations Environment Programme (UNEP) and carried out by the International Soil Reference and Information Centre (ISRIC) in Wageningen (The Netherlands).

¹⁶ See UNEP (2003).

4. What prospects does organic farming hold for the poor?

To answer this question, it is very important to distinguish groups of rural poor according to land ownership and agro-ecological framework conditions. At least organic farming offers those peasants using traditional methods and employing hardly any external inputs an opportunity to directly raise yield and thus improve income. Often, the smallholders' increasing control over their own resources (land, water, labour power, production system) that goes hand in hand with this development results in greater self-awareness, which is also reflected in a general strengthening of the role these people play in the social system. Such empowerment is a prerequisite for collective self-help and the overcoming of marginalisation. In interest groups, they thus obtain the possibility to shape the framework conditions for smallholder agriculture to their advantage.

Once marketing opportunities can be reckoned with, a development towards (certified) organic farming may offer additional income effects. Demands on group organisation, internal mutual control and the necessary development of appropriate production systems can enhance personal responsibility, creativity and self-initiative in the community. The autonomous use and co-determination of resources, rules and institutions which are, for example, related to group-certified products and marketing pose a challenge to formulate one's own needs and

development goals and to implement the latter¹⁷.

However, a number of requirements have to be fulfilled for certified farming. Converting production methods while simultaneously organising marketing and meeting the conditions for certification put very high demands on what have so far been unorganised farmers in disadvantaged regions far off from any markets who have often only had insufficient or even no school education.

Organic farming offers smallholders advantages thanks to the lower demands on external input. The precondition here is effective soil and water management that the farming system is based on. Given the more than 840 million people suffering from hunger, the FAO survey on organic farming, environment and food security stresses the need to increase national food production with low-cost, locally available technologies and resources while avoiding harm to the environment¹⁸. The use of local, renewable resources in organic farming in particular comes very close to this goal, for it goes hand in hand with control over one's own input, which in turn protects peasants from dependence on and indebtedness to merchants and agro-corporations. In Af-

¹⁷ Also see Rosset (1999) on the positive effects of general smallholder agricultural structures on empowerment and self-responsibility.

¹⁸ See FAO (2002).

rica, secure and timely supply of procured input is a constant problem. The vicious circle of poverty and indebtedness is the chief problem among the peasants lacking capital in Asia. This is why here, it is the ability of people to improvise and innovate that represents the most important resource. Sustainability can only be secured in agricultural systems if the ability is there to adapt them to permanently changing environmental conditions (climate, market, availability of labour, etc.).

In organic farming, the general labour requirement for erosion protection, weed control and nutrient supply is higher than in conventional farming and is regarded as a crucial production factor. Thus the operating costs above all depend on the prices and opportunity costs of labour¹⁹. For example, in some African agrarian societies characterised by a lack of labour, high labour demands are a limiting factor. On account of HIV/AIDS, this state of affairs is going to worsen. In contrast, in other regions, economic advantages may arise from employment opportunities being maximised, especially for poor households with several children and poor employment prospects outside agriculture (going hand in hand with low opportunity costs of labour).

This is the exact opposite of the situation in the industrialised countries and constitutes one of the chief advantages organic farming offers poor people in developing countries²⁰.

Being successful in marginal locations without expensive inputs - on a long-term basis

For poor households that cannot afford any major production risks, maximum yields are not as important as secure yields in the long run in order to ensure food security for the families. Thanks

¹⁹ What is meant here is the cost of revenue from an alternative use of labour that has been forfeited (also see Glossary at the beginning).

²⁰ See Rosen & Larson (2000).

to its better soil and water management, organic agriculture shows significantly lower fluctuations in yield from crop farming than conventional farming does. For example, damage to harvests in the wake of Hurricane Mitch (end of 1998) in Central America was much less severe among farmers with agro-forestry systems, intercropping and soil-covering plants than it was among their conventional neighbours²¹. Simultaneous growing of different crops, the choice of seed and diversity of varieties minimise fluctuations in yield and therefore represent an integral element of many traditional farming systems, such as in quinoa-growing by the Quechua and Aymara farmers in the inhospitable Andean highlands.

Yield stability is particularly important for the poor. This is why risks, such as high vulnerability towards environmental adversities (droughts and storms) and little cushioning capacity in the event of socio-economic shocks (illness, disablement, market price fluctuations) should be minimised. Stability in agricultural production combined with social networks in families and communities adds up to a life insurance for poor smallholder families²².

Which poor get the benefits?

As a note of caution, it has to be stressed that the above-mentioned advantages do not apply to the same degree to farmers in favourable agricultural locations or regions with good market access. Wherever employment opportunities exist outside agriculture, in the construction sector or in small-scale industries, the value, and hence the price, of labour will rise. Here, for poor families in particular, survival will depend on how much labour they are still investing in agriculture. This is especially important against the background that the organic production methods usually develop their yield-increasing effect more slowly than

²¹ See FAO (2002).

²² See Ellis (1993).

those incorporating the use of chemicals. But the poor depend on attaining surplus production of food as quickly as possible or on other income sources²³. In addition, in the South too, the young generation do not like to spend the whole day toiling in the fields if there are attractive alternatives. Increasing leisure-time by using pesticides instead of weeding is very common among many of the Maya maize farmers in southern Mexico. In Africa, the almost magic reliance on pesticides in "plant medicine" is very widespread.

But as already mentioned above, most poor smallholders live in regions in which there are hardly any employment alternatives and input supply is hardly ensured. These farmers run the risk of becoming indebted owing to dependence on agro-chemicals and vulnerable through market failure.

In a region with good access to infrastructure and institutions, (frequently still subsidised) chemical inputs are often more easy to obtain and cheaper than agro-ecological knowledge and consultation. Here, one will all too quickly opt for unecological, labour-saving but one-sided agriculture as a sideline activity, as is the case, for example, with the K'iche' farmers in the highlands of Guatemala, who also work as artisans.

CONCLUSION

In the long run, organic farming offers advantages compared to conventional farming because it not only promises higher yields but also ensures higher yield security, reduces dependence on external input and thus makes poor households less crisis-prone. These are weighty arguments, especially in marginal locations.

²³ See UNDP (1992).

5. What problems occur in introducing organic farming systems?

As already shown, organic farming does not have to rely on access to external inputs such as fertiliser and pesticides because the farmers make use of their own resources. However, factors such as knowledge, consultation, organisation and political influence are crucial

to the true prospects an organic farming system can offer marginalised farmers.

The problems occurring in introducing organic farming in the South are summarised below (s. Box 1):

Box 1: *Problems in introducing organic farming*

Knowledge and consultation

- Absence of scientific ecosystematic knowledge and its consistent application,
- Chemistry and other new technologies are often still regarded as “modern” and progressive,
- A lack of culturally adapted contents in agricultural extension services and institutions regarding organic production methods and marketing,
- Insufficient investment in ecological agricultural research (e.g. in the development of locally adapted varieties for food cultures),
- Not enough experience in considering and passing on indigenous knowledge.

Major participatory research effort; political lobby

- Little political support by the governments and established science, both of which are often closer to the interests of the urban consumers or agro-chemistry companies,
- Political advantage of non-organic farming in government extension services.

Economic support

- Market economy structures opposed to organic farming methods (lack of internalisation of external environmental costs that are caused by non-organic production methods),
- Additional distortion of market prices by government subsidies being provided for external inputs (sometimes chemical fertiliser is used as an election bribe by governments).

The key problem: knowledge and consultation

Here, the prime aspects are the introduction or reactivation of ecosystematic philosophies of crop rotation and pest control and consultation on organic farming and marketing. For example, the spread of organic farming in Central America is complicated because soil fertility there is considerably poorer than in South or North America²⁴. Fragile ecosystems put particularly high demands on the traditional or modern abilities of farmers. This is especially true for organic farming, where organisational mistakes cannot be rectified by merely resorting to using more chemicals. Traditional indigenous knowledge, wherever it still exists, is particularly valuable for effective soil and water management and appropriate diversification of cultivation systems, although in most cases it has to be developed further. It ought to gain a higher status in society as the starting point for rural education, extension and agricultural research institutions. For the marginalised, subsistence-oriented regions in particular, it is crucial for the projects introducing organic farming, to be capable of adapting practice-oriented knowledge of ecosystems to the culture of the farmers.

Again and again, practitioners experienced in the introduction of organic farming in the South, above all, stress the lack of adequately trained extensionists who could promote concrete, locally adapted cultivation methods, and who could work, through participatory approaches, against prejudices against organic and traditional production methods. Since the government does not provide the infrastructure for such extension services in most countries, this is a special responsibility for the non-governmental development organisations and organic farming associations.

In poverty conditions, it has to be borne in mind that improvements in income that will only materialise in the long term are of little value to families suffering from poverty and hunger right now, and that they may represent a considerable obstacle to lasting success with conversion. Good and honest consultation has to consider this.

CONCLUSION

The spread of organic farming depends strongly on the self-initiative of farmers because the political lobby and economic support are at a low level and access to consultation and information is insufficient. In the developing countries, the general trend is opposed to organic farming.

²⁴ See Rosen & Larson (2000).

6. What sort of agricultural extension services benefit the poor?

For a long time, economic aspects were at the forefront of debates on poverty reduction in rural areas. In spite of this, international organisations, national development commissions and agricultural research are still developing solutions in which poor smallholders are not at the centre of considerations as actors of rural development even though they are the ones who have suffered most from misguided policies.

Owing to marginalisation, poor people seldom have the opportunity to actively participate in shaping the situation they are living in and influencing the political framework conditions. As a rule, they lack access to (good) school and further education, as well as to political decision-making processes. Usually, poverty and marginalisation result in a loss of self-esteem and confidence in one's own abilities. Influence coming from a "modern" society systematically degrades traditional knowledge and specific cultural features. Food production and cultivation methods change, and a paradigm develops that everything that is modern is better than tried and tested traditions. Advertisements for agro-chemicals reach even the most remote areas. Many farmers have lost their independence and decision-making powers in agriculture.

What impacts go hand in hand with the Green Revolution?

Conventional agriculture works in a similar manner the world over. Farmers buy seed that they have procured elsewhere for their crops and apply fertiliser

and pesticides according to the respective instructions. Knowledge of complex interrelations and the ecological balance disappear, the range of crops grown is narrowed down, self-initiative and creativity on the part of the farmers is less in demand, and research has migrated from the farmer's field to the laboratory.

What opportunities do sustainable forms of agriculture offer?

In sustainable agricultural systems, the role of the farmers may look entirely different. Thanks to interactive learning and the recollection of traditional knowledge, the farmers are enabled to develop and advance their agricultural systems autonomously. Their analytical abilities are strengthened, they learn how to design their own solutions, and they critically assess which innovations are useful in their conditions and which traditional practices are worth retaining. Consumers of agricultural instructions thus turn into creative actors again.

Women, who traditionally play an important role in agriculture and are often excluded from "modern", export-oriented systems, can once again strengthen their role in the course of the development of sustainable systems. With changes to the management systems and the replacement of external inputs, e.g. by the farms' own fertiliser or locally grown seed, the farmers can regain control over resources and production processes - and they find a way out of the debt trap²⁵. Thus acquired

²⁵ Oram J.A. 2003

self-confidence and independence result in changes to other areas of life as well. The exchange of experience in the groups of farmers promotes their solidarity. The self-esteem of the women as well as that of the elderly generates more social justice.

Groups of farmers forming networks and getting organised can also mobilise politically, stand up for their rights and create a counter-balance. In some cases, by developing alternative models and engaging in strategic lobbying for their interests, smallholders have already succeeded in changing the political framework conditions to their advantage. For example, the campaigns of Philippine organic farmers have led to the government appreciating the benefits of smallholder agriculture and critically reviewing the introduction of genetically modified seed.

Does organic farming support poor smallholders?

A precondition for developing the self-help potential of poor smallholders is that they hold responsibility and are supported by a participatory extension approach. Methods such as "farmer field schools"²⁶ or "participatory technology development"²⁷ promote the farmers' scope for action.

Organic farming provides the preconditions for this development, for it requires that the farmers constantly engage in learning. Being organised in interest groups strengthens the political power of the smallholders.

However, if the focus of agricultural extension is solely on economic and environmental aspects, without socio-cultural elements being given any consideration, the potential of organic farming to boost the self-help capacity of its clients is not made use of. Therefore, active participation in designing developments as well as creativity are of particular importance.

Box 2: The Seven Dimensions of Sustainable Agriculture

- 1. Ecologically Sound**
- 2. Economically Viable**
- 3. Socially Just and Equitable**
- 4. Culturally Sensitive**
- 5. Appropriate Technology**
- 6. Holistic Science**
- 7. Total Human Development**

Taken from: Sustainable Agriculture Centre, A Decade of Challenges and Inspiration 1991-2001, 2002

CONCLUSION

Sustainable forms of agriculture, and here, organic farming, enable self-help capacities of poor groups of farmers to be boosted at economic and socio-political level. The precondition for this is that responsibility for the development processes lies with the farmers themselves and participatory extension methods are applied that mediate technology development rather than merely passing it on.

²⁶ ILEIA, LEISA Magazine 2002

²⁷ IIRR,ETC, CTA 2003

7. Can improved cultivation methods reduce poverty?

There are a wide range of strategies to reduce poverty. For example, the growth approach relies on everything that helps economic growth in society as a whole “automatically” trickling down to development in rural regions. Other approaches focus more on the effects of measures tailored to specific sectors and target groups. Thus the insight is slowly spreading that development and growth in the agricultural sector is particularly socially compatible, i.e. that these factors make a special contribution to poverty reduction.

Table 1 shows that poverty-oriented agricultural policy with the aim of sustainable increases in yield can represent an effective measure to combat poverty, especially in Southern Africa and in Asia. Every increase in crop yield by 10 percent reduces the number of income-poor in Sub-Saharan Africa by an average 7.2 percent.

Table 1: Effect of a 10% increase in crop yield on the number of “dollar-poor”* (Source: Thirtle et al. in Byerlee & Alex, 2003)

Region	Share of poor* (%)	Reduction of the number of poor (%) by a 10% increase in yield
East Asia	15	4,8
South Asia	40	4,8
Sub-Saharan Africa	46	7,2
Latin America	16	1,0

* Related to poor people with < 1 US\$ income a day

However, fair land distribution is a prerequisite for poverty reduction via the improvement of cultivation methods if progress in agricultural development is to benefit the majority of the **rural population** as well. In Latin American countries, where the land is in the hands of a handful of big landowners, only the relatively small stratum of landowners themselves benefit from progress in the agricul-

tural sector. This is why the poverty-reducing effect of yield increases is smallest here and why it requires far-reaching development approaches that are tailored much more to the requirements of individual groups than need be the case in, for example, Africa²⁸.

²⁸ See Byerlee & Alex (2003).

Poverty reduction to the extent stipulated in the Millennium Development Goals can only be attained if several levels are addressed simultaneously. Here, as far as the rural regions are concerned, the strategies of land reform and improved socio-economic framework conditions play an important role. **Agricultural policy** is required to take action particularly with regard to improvements in infrastructure and market access and in eliminating artificial scarcity of land due to its unfair distribution. Every agricultural technology - including organic farming - can only be as good as the external framework conditions allow for. Without access to the necessary productive resources such as land and irrigation as well as to the non-physical resources of knowledge, institutions and self-organisation of the farmers, long-term poverty reduction for the rural population will remain an illusion. Framework conditions are not going to change without their participating in decision-making processes and an increase in their negotiating power.

Who bears responsibility?

With regard to the political framework conditions in particular, it has become apparent that promoting rural development in one's own country has been criminally neglected by the governments of the developing countries over the last few years. This tendency has been strengthened by the policy of the Structural Adjustment Programs introduced by the World Bank and the International Monetary Fund (IMF) in the eighties. Forced liberalisation of agricultural markets and cutbacks in social services have in particular failed to bless the poorer farmers living further away from the markets with development, as the "Structural Adjustment Participatory Review International Network"²⁹ (SAPRIN) shows.

But irrespective of the one-sided Structural Adjustment Programs, poverty and inequality is going to increase in rural regions because the governments themselves are investing far too little into poverty-oriented agricultural research, extension services and rural infrastructure. Instead, the interests of urban consumers tend to be more at the forefront of politics. Artificially cheapened food imports for the urban population are only one of several examples of a political strategy that harms smallholder agriculture in particular instead of securing food for the farmers³⁰. Table 2 summarises the most important causes of rural poverty and shows up the limits of agriculture in combating it.

CONCLUSION

Agricultural production methods alone cannot eliminate the multitude of causes of rural poverty. This requires the external framework conditions of fair land distribution and political support for agricultural research, extension services and infrastructure. This also applies in the case of organic farming. It comes up against limiting factors where economic, social and political development measures are lacking. However, once the framework conditions are in place, organic production methods will prove a very important instrument for agricultural growth, securing the food base and creating employment in the rural regions.

²⁹ See SAPRIN (2002).

³⁰ For a detailed description of discrimination against the agricultural sector in developing countries, see Zeller & Johannsen (2004).

Table 2: Causes of poverty and how the agricultural sector can combat them (Source: Modified, taken from BMZ, 1995)

What are the causes of rural poverty...?	How can they be eliminated?
... at national and local level	
Unequal land distribution	<i>Agricultural policy:</i> Land reform
Lack of employment in rural regions	<i>Agricultural and fiscal policy:</i> Economic growth in the agricultural sector creates employment but requires infrastructural framework conditions
Dwindling of area and labour productivity	<i>Agricultural research and extension services:</i> Securing productivity with sustainable production methods
Unequal distribution of income	<i>Social and economic policy:</i> structural adjustment has to be socially compatible!
Population growth	<i>Social, education and health policy:</i> "Quality instead of quantity" in family planning
Exclusion of the poor from political co-determination	<i>Civil society initiative and political pressure towards democratisation and decentralisation:</i> Co-determination (<i>empowerment</i>) of women and disadvantaged (e.g. indigenous) groups
... at international level	
Trade barriers, protectionism	<i>WTO negotiations:</i> fair globalisation that does justice to unequal partners
Debt crisis	<i>International comity of states, industrialised countries:</i> Debt relief, raising (ODA) funds for agriculture and rural development

8. Do organic methods mean accepting lower yield?

According to FoodFirstInstitute, one-and-a-half times as much food is currently produced world-wide as is required to feed the world's entire population. So the causes of hunger are not insufficient production but poverty, inequality and a lack of access to productive resources such as land³¹. However, owing to the prevalent power structures, redistribution linked to true poverty reduction is unrealistic in many areas. Against this background, the improvement of production methods gains importance; on the political level it appears to be easier to realise. Here the question of the yield potential in organic farming arises.

As the study by Greenpeace and Bread for the World of 2002 ("The true Green Revolution") demonstrates, the widespread assumption that conversion to organic farming would result in a decline in yields has proved wrong. The increase in area productivity following conversion is described in several case studies (see Table 3). Usually, unlike in industrialised countries, smallholders in the South do not switch from intensive systems to organic farming since they have farmed mainly in extensive, "traditional" cultivation systems. So in the South, as a rule, conversion means an intensification of area use.

Table 3: Examples of yield increases following conversion to organic farming in developing countries (Source: Greenpeace, 2002)

Cultivation system, country	Measure of conversion	Yield development
Maize in Brazil	Green manuring, soil-covering plants	+ 20-250%
Crop growing in Ethiopia	Applying compost	+ 300-500%
Highland cultures in Peru	Soil protection with Inca terraces	+ 150%
Potatoes in Bolivia	Agro-ecological management	+ 20%
Coffee in Mexico	Shade trees	+ 23-38%
Rice and wheat in Pakistan	Fish breeding, afforestation, biogas plant	+ 23-25 %

³¹ See Altieri (University of Berkeley, California, USA) and Rosset (FoodFirst Institute, Washington) (2002).

In 1992, the UN Development Programme (UNDP) conducted a major, albeit non-representative study among several hundred organic farms in different climatic and soil conditions in 14 developing countries in four continents³². As had been expected, no generally valid, uniform result could be obtained regarding the issue of yield potential and yield stability. However, the majority of case studies demonstrated that, compared to traditional farming, organic farming entails significant increases in harvest. But in comparison to conventional, input-intensive cultivation, in the same area, organic farms still produced less, especially in the case of cotton (Turkey) and sugar cane (Brazil), but not with tea (India).

However, experience gained by the farmers' organisation MASIPAG in the Philippines, where income increases could even be achieved in high-yield locations with organic farming methods, represents an exception³³. Yields were almost as high as with conventional farming. But thanks to much lower expenditure on input, much more profit was left for the farmers. This example clearly shows that further studies are required to make statements on the true yield potential of organic farming.

Is area yield the right measure?

For the situation of many farmers in the developing countries, it is not only the yield figures per hectare or cost calculation that prove crucial.

In this context, FAO (1998) proposes:

- measuring yield performance against applied external input (i.e. yield in relation to the amount of fertiliser or pesticide applied),

- calculating total operating performance in relation to the respective relevant critical production factors (such as labour or water - i.e. instead of establishing the area yield of an individual crop, working out the entire production of a highly diversified farm and comparing the costs of labour time or water applied).

Agricultural experts in the tropics stress that conventional yield measuring does not do justice to the true productivity of smallholdings. In highly diversified, small area production conditions (usually intercropping systems), the yield of a certain crop per area cannot compare to intensive, chemical dependent monoculture. But if overall yield per unit area is considered bearing in mind the diversity of crops and animal products in smallholdings, one-sidedly structured large-scale farms are often inferior by far to these area-intensive forms of production³⁴. What also has to be taken into account is the synergies of mixed farming and the use of many by-products in traditional societies. Often, for example, weeds are still highly desirable food, while straw and other waste represents important products for animal husbandry and composting.

CONCLUSION

Many factors have to be considered when comparing organic and conventional farming. Area productivity as a conventional measure is not meaningful on its own. There is sufficient evidence of yield increases having been attained with organic farming. However, in most cases, and in all locational conditions, increases in income have been recorded for poor smallholders thanks to using local resources and not having to rely on expensive external means of production.

³² See UNDP (1992).

³³ See MISEREOR (2003).

³⁴ See Rosset (1999).

9. When does certification and standardisation make sense?

Guidelines provide a description of what is formally confirmed by a certificate. So certification requires standards. But who benefits from internationally accredited certification?

Box 3: Steps towards certification

1. Farmer's request submitted to certifier
2. Exchange of information
3. Signing of agreement in which the farmer/processor commits himself or herself to observing the respective standards
4. Inspection
5. Evaluating how the results of inspection are in compliance with the standards
6. Certificate

In organic farming, certification is easiest to explain by way of how it was developed. Organic agriculture was not invented by theorists or scientists but was developed by practising farmers in Europe. Organisations and associations of farmers evolved from this movement in Europe the members of which had all had the same notion of organic farming long before certification was to develop. The faster the associations grew, the more difficult it became to maintain an overview. The development of standards and inspection/certification were separated in order to preserve one's own credibility. This development progressed in a similar manner through several European countries - more or less quickly, and cer-

tainly long before there was any EU legislation on organic farming. In 1991, EU Regulation 2092/ 91 on organic agriculture was introduced and supplemented with animal production in 1999. The aim was to protect consumers from abuse in the growing and lucrative market of organic products.

World-wide, producers criticise that the cost of inspection and certification is too high. A number of farmers in the South who have developed organic farming in a similar manner to that of Europe and are networking at local, national and international level are increasingly regarding certified organic farming as a bureaucratic and expensive impediment. It is true that no certification is required to attain greater soil fertility and yield stability with organic cultivation methods. Certification is a market instrument that only becomes interesting when new marketing channels can be opened up and higher selling prices are achieved. This is why IFOAM President Gunnar Rundgren stressed at the BioFach in February 2004 that "there is no incentive for certification if production is for personal consumption. In this case, certification would be nonsense, useless and a waste of money and energy."

Why certified organic products?

Organic certification makes sense if an end-consumer is to be given convincing evidence of an organic product's special features, especially if this buyer is not in direct personal contact with the producer owing to great distances. But if no such distances are involved (as is the case, for

example, in direct marketing), no certification is required to replace trust in organic farming and compliance with certain standards.

Internationally accredited certification is needed if organic products are traded world-wide. So the spatial and cultural distance between a coffee-grower in Tanzania and a European coffee buyer necessitates certification for both sides. The customer requires a safeguard that ecological and quality standards have been observed, which is guaranteed by the organic label. And the coffee-grower can protect his produce with labelling against free-riders seeking to enjoy the advantage of higher selling prices with a lower effort. With this seal, he can achieve a higher purchasing price for his product which will compensate him for his additional production and documentation effort.

It is essential for this label to be awarded by an organisation known to the consumers in the other country. It must be made clear to the consumer that a com-

Box 4: Certification makes sense ...

- a) as a marketing instrument in premium markets,
- b) to do justice to the customer's desire for reassurance (given a great distance between the producer and the consumer),
- c) to promote the development of standards and their fair implementation.

mon understanding of "organic" has been established. The organisation must vouch for compliance with the standards. If there is legislation in the importing country that protects the use of the word "eco" or "organic" for food, this organisation must be recognised by the importing country's legislation. It is then no longer an issue of a random definition of

"eco" or "organic" but always that of the legally established definition in the importing country. So the importing country will only allow organic goods on its market that have been certified by an organisation abroad in accordance with the legal regulations of the importing country. This presupposes that the certifying organisation in the exporting country has been accredited by the importing country.

Certifying structures as a political impulse?

In addition to attaining better prices, the advantage of certification is that the standards and compliance with them in practice is constantly reviewed. For only those wishing to be successful on the market with their products and asking a surplus price on account of a recognised seal have to consider the basic concept, its rules and compliance with them. The environmental movement in Europe really has done a good job and provided an impetus for farmers to consider getting organised in self-responsibility as well as for new cultivation methods. In Europe, in addition to the legal label for "organic", there are no end of private organic farming organisations that add further requirements to the legal ones with their private seals.

Generally, certified organic farming can promote smallholders regarding self-responsibility, political co-determination and group consultation and certification.

However, unlike good extension services, certification is neither necessary nor helpful in cultivating healthy food with long-term yield stability using organic production methods. Purely in the context of the development goals of poverty and hunger reduction, organic farming does not need certification.

Box 5: *Certification is doubtful ...*

- a) in food security for the poor,
- b) if there is no harmonisation in the development of standards.

Certification as an instrument of exclusion

Supported by government legislation on organic farming in more than 30 countries world-wide, the certification system has assumed ever more complex proportions. Only in few cases are there agreements between governments according to which they mutually respect their laws and certification procedures. In this case, goods can also be exported into a country if a group of farmers have only obtained national certification. But in all other cases, the farmers have to obtain the accredited certification of all the different importing countries. This administrative effort is tedious even for well-trained European farmers. It is all the more so for smallholders from the countries of the South who do not have the opportunity to inform themselves about the requirements and criteria of a complex certification system. What they mainly see in certification is the high costs and the effort needed for inspection and standardisation. This is why there is a danger of farmers from developing countries being excluded world-wide from the organic market and national legislations being abused or inadvertently acting as trade barriers.

The multitude of private labels that are now in existence in addition to organic farming certification represent a further critical aspect from the angle of the smallholders. Calls for a harmonisation and simplification of marking appear justified because the individual labels partly demand an additional effort on the part of the organisations in spite of the products

already having been approved by private certifiers. A Tanzanian representative of a coffee co-operative comments: "As long as individual associations and enterprises pursue their own regulations on certification, this will mean a considerable organisational, financial and time effort for us here in the developing countries. With regard to our different sales markets, the system is very inflexible. This makes certification our greatest trade obstacle."³⁵

CONCLUSION

Certification is not an issue when it comes to food security of hungry people and smallholders producing for their own consumption.

But also in those cases in which it would offer advantages in marketing, it becomes dubious if it is linked with a high documentation, controlling, organisational and bureaucratic effort. Many national governments do not consider smallholders with a low level of school education.

Difficulties also occur when the newly entered markets for exports respond in too rigidly to the various organic labels and certification goes hand in hand with a disproportionately high effort for the producers and merchants from the developing countries. A harmonisation of standards, mutual recognition of laws and certification systems as well as less bureaucracy are essential. Both bilaterally and multilaterally, a corresponding initiative of state legislators is urgently required at international level.

³⁵ In 2002, the participants of the Workshop *Alter-Organic: Local Agendas for Organic Agriculture in Rural Development* arrived at comparable conclusions (Kotschi et al., 2002).

10. How can local organic movements benefit from the development of international organic markets?

Internationally accredited or alternative certification?

Conventional certification relates to internationally accredited organic labels in accordance with the standards of the EU, the USA, Japan or another importing region. In addition, alternative forms of certification for domestic marketing in the South are already being discussed that would ideally contain less in terms of quality and safety standards but more social justice for smallholders who are ethnically and economically discriminated.

Competition or mutual complementing?

Usually, the incentive for certification according to international standards is that of the considerably higher selling prices in the North. For example, the organic farmers in East Africa score sales profits in the framework of an export promotion programme with the EU that are 15 to 40 percent higher than if they had directly marketed their products in their own country. As a rule, the international organic standards are higher than the national ones. So a farmer who has been awarded an international seal of quality can usually sell certified goods on the

domestic market without any further effort; but the reverse does not work. This may be of considerable importance when products are concerned for which both an international and a national market exist. This is usually the case with easily perishable fresh goods such as vegetables and fruit. Tropical semi-luxury articles (coffee, tea, cocoa) or exotic products such as avocados or cooking bananas are not affected by this since they are usually made ready-for-sale in the industrialised countries by processing, packing and marketing firms.

Thus the local organic market can develop in the wake of the export market. Often, this is merely a way of selling surplus goods or spoilage on the domestic market. In the initial stages, when a domestic market for organic products has not yet developed, marketing may still proceed without premium prices. By and by, hotels, canteens and tourists as well as the local income elite will then develop an interest in certified premium products. The imitating effect works: what is important to people in the industrialised countries must somehow make sense.

In terms of business management, many processes on the farm and in the family have to be newly organised to ac-

commodate organic farming: the division of labour among the sexes and generations, the seasonal workload, field distribution, marketing, stockpiling or extending the money economy.

What the farmer's family learn when growing organic products will not remain restricted to them but can bring about fundamental changes to thinking and action in other areas as well. Systematic observation of nature replaces the use of chemicals, while quality management becomes a precondition for the marketing of other products. In a nutshell, faith in one's own development of the production method grows in parallel with mistrust of the methods and paradigms of conventional farming.

The development of the organic markets was made possible by the self-organisation of the European organic farmers. They were largely independent of financial government subsidies and could finance themselves primarily with producer charges resulting from additional income through marketing organic products.

After more than 20 years of an international movement of organic farming, countless farmers' associations, marketing initiatives and supporting initiatives of a wide variety have emerged in developing countries that are linked up in an international movement. In some developing countries, the establishment of organic farming has gone hand in hand with an increasing organising and mobilising of farmers who are now also campaigning for their causes at political level. Thus the involvement of these associations has evolved from an agenda initially limited to production method and market-

ing organisation issues to social policy engagement.

The organic farming movement is based on the innovative performance of the farmers and the economic success scored with the sale of premium products. Over the last few years, this has been joined by political success. To an increasing degree, certified organic farming is being supported by the governments of the North. International organisations are also showing organic farming their respect, albeit not with due recognition and support. Examples here are the FAO, UNEP, IFAD and the Codex Alimentarius. Thus, as part of this movement, the organic farming organisations of the developing countries can also benefit from the economic basis of the movement and do not have to rely on subsidies.

Most of the methods recommended by organic farming research and international exchange on this are just as relevant to sustainable farming as to organic farming. In terms of specialist insights, there are no boundaries between these two forms. Their slight differences relate primarily to quality management and marketing issues, but not to production methods.

CONCLUSION

Certified organic farming may raise problems for many developing countries. But it is a nucleus around which considerable dynamics have developed that could be more important than the starting point itself. Farmers' movements originate from it, national organic markets have evolved, and the principles have resulted in considerable innovative surges on the farms.

11. Are farmers incapacitated by the development of standards and by complying with them?

National legislation or clever copying?

In several countries, the development of standards and local certification and trade structures are still in the process of being established (see Table 4). The degree to which authorities orient themselves on the interests and needs of the individual actors in countries in implementing structures depends considerably on the strength of the organised organic farming movement.

Regionally and culturally adapted certified organic farming requires forms of cultivation as well as organisational structures that the farmers themselves have developed. Otherwise there will be a danger of governments adopting the stan-

dards of the industrialised countries without checking them, which would be entirely inappropriate. The natural and economic locational conditions and traditional indigenous knowledge at local level have to be considered by the government in every national definition of organic farming. Unlike in the developing countries, in Europe, work on standards at grassroots level by the organic farming associations was crucial to the later development of the IFOAM standards at international level, on the basis of which, in turn, the EU guideline was developed. Here, general activities regarding standards progress bottom-up, which would be far more difficult to achieve for the farmers' organisations in the South, given the international standards that exist today.

Table 4: Countries with legal regulations of their own that are either already in force or are being developed (Source: modified taken from Willer & Yussefi, 2003)

Countries with national guidelines in force			Countries developing guidelines		
Asia / Pacific	America	Africa/ Middle East	Asia / Pacific	America	Africa/ Middle East
Australia	Argentina	Tunisia	China	Canada	Israel
India	Costa Rica	Egypt*	Hong Kong	Nicaragua	Lebanon
Japan	Brazil*		Indonesia	Peru	
Philippines	Chile*			St. Lucia	
Korea	Guatemala*				
Taiwan	Mexico*				
Thailand					
Malaysia*					

* Guidelines not fully implemented

Box 6: How is the development of national regulations progressing in the South?

National legislation on organic farming already exists in more than 30 countries worldwide. This trend has been supported by the EU organic farming regulation 2091/92, which enables exporting of organic products to countries with their own national legislation (similar to the EU Regulation) to be simplified (list of third-party countries). So far, this list only contains seven countries: Argentine, Switzerland, Hungary, Czech Republic, Israel, Australia and New Zealand. In spite of the considerable obstacles that need to be cleared to be entered in this list, such a prospect is frequently put forward as an argument to quickly pass national legislation without involving the true actors. To facilitate exports, they are drawn up almost as carbon copies of the IFOAM and other standards. The development of one's own, local markets is neglected entirely and even prevented in some cases.

How important is conviction?

A fair number of organic farms in the South producing for the export market are large-scale farms and plantations. In order to distinguish possible conflicts between purely commercial export interests, poverty-oriented development and non-certified forms, the farmers' interest groups of the

country already have to be mobilised when developing the regulations. The manner in which organic farming is developed in a region or is introduced there is crucial to its character and development dynamics. Often, it is difficult for representatives of farmers' associations, fair trade and development organisations to have a say at government level.

This issue is commented on by a local Fair Trade organisation from Indonesia in the following:

"One major problem is the current development of standards on organic farming and aquaculture in Indonesia. While the ideas for the standards are born at grassroots level, the guidelines themselves are defined at government level. This top-down approach is very dangerous. A month ago, we called at the government regarding this aspect, for a top-down development of standards can hardly work. Since the organic farming trade fair of 2002, Indonesia has been keen to develop its own organic farming standards, but there is a danger of the IFOAM standards merely being copied. This sort of thing should not be developed in government circles."

CONCLUSION

Are standards as such too rigid? Do they restrict the farmers in terms of decisions and innovation? When only the development of isolated farms and communities is at issue, rigid standards do not make sense. They can merely indicate in what direction one's own search

process could evolve on the way to organic farming. For the standards represent a condensed version of experience made by several farmers that has been translated into pragmatic recommendations. However, if they are adopted in their entirety, and without having been adapted to local conditions, they can turn into a complete alienation from one's own realities.

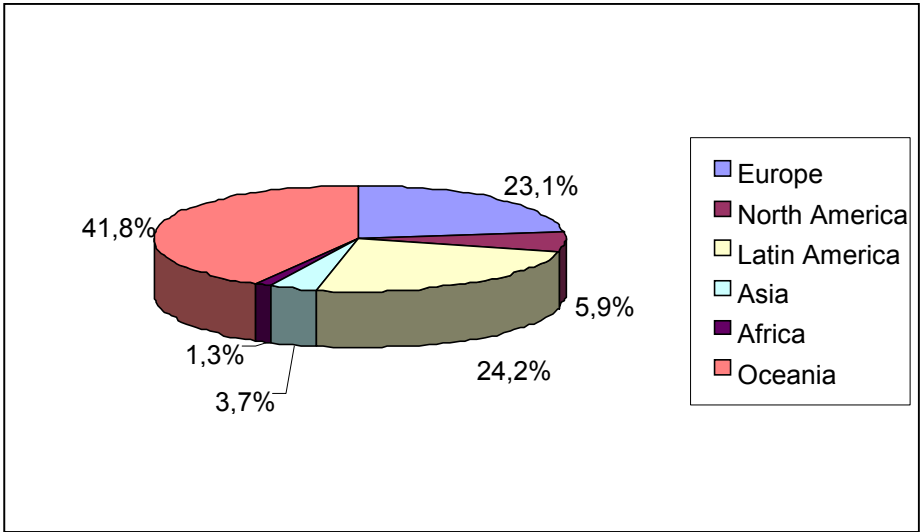
12. How much does organic farming in the South rely on exports?

Organic farming world-wide

More than 24 million hectares of land is farmed organically - over 40 percent of this is in Oceania and almost a quarter respectively in Latin America and Europe

(cf. Fig. 4). However, more than half of the area farmed organically world-wide is concentrated in just three countries - Australia, Argentina and Italy - that account for the lion's share of the respective continent.

Figure 4: Area farmed organically world-wide by continent (Source: modified, taken from Willer & Yussefi, 2004)

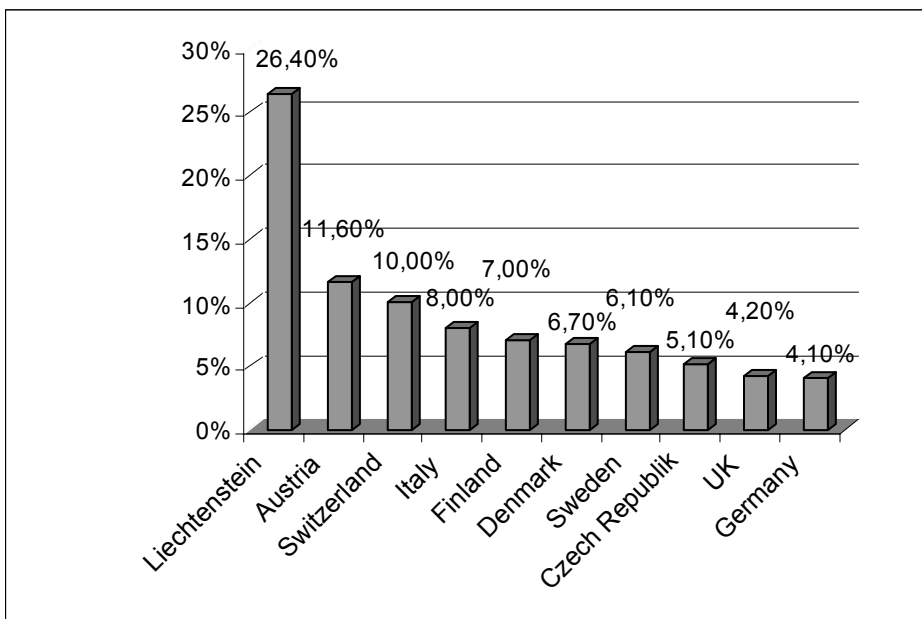


In Australia alone, a share of around ten million hectares is accounted for by extensive pastureland, just like the almost three million hectares in Argentina. Owing to this high share of pastureland, less than half of the area farmed organically world-wide is cultivated arable land. However, in terms of the percentage of total land used, European countries head the statistics. The countries with the larg-

est share of organically farmed land are represented in Figure 5.

Among the countries of the South, the European champions are followed by Ecuador (3.1%), Argentina (1.7%), Chile (1.5%), Uganda (1.39%), Belize (1.3%) and Bolivia (1%). Thus they are all well above the share of organically farmed land in the USA, which is just 0.23%.

Figure 5: Percentage of organically farmed land of total land used in various European countries (Source: modified, taken from Willer & Yussefi, 2004)



The organic farming market as a growth sector

According to UNCTAD estimates, in just a few years, the value of organic products traded world-wide rose from 10 billion US dollars in 1997 to 23 billion US dollars in 2002. It is estimated to be 30 billion US dollars in 2005³⁶. Given this fact, at least globally, there can no longer be any mention of a "niche market". However, the sales markets concentrate on Europe and North America, where 46 percent and 51 percent respectively of world-wide organic farming revenue was earned³⁷. With regard to the selling value, Germany, the UK and Italy constitute the largest European markets. Most other European countries can still boast healthy growth.

The largest sales market for organic products continues to be in the USA. Here alone, retail sales were recorded at up to 13 billion US dollars in 2003; annual

growth rates of 15 to 20 percent have been forecast for the coming years. Forecasts for Japan are similarly positive, although here, national regulations have only been in force since April 2001. Prior to 2001, organic products had been sold within the range of "green" products. While the selling value of these "green products" from sustainable economic systems (with reduced application of pesticides) for 2000 was put at 2 to 2.5 billion US dollars, it probably only amounted to 250 million US dollars for the products referred to as organic in accordance with new legislation³⁸.

In the context of food security debates and lobbying of farmers' organisations from the South for food sovereignty³⁹, food exports, whether it be organically grown food or not, are controversial. There are fears that they could be at the expense of staple food, that producers will become dependent on distant export markets and

³⁶ See Kortbech-Olesen (2003).

³⁷ See Willer & Yussefi (2004).

³⁸ See Kortbech-Olesen (2003).

³⁹ See Via Campesina.

that they cannot control the terms. Via the conversion of production processes, cash crops can also result in considerable structural changes to traditional peasant societies. The international organic farming movement shares these social and economic concerns and is attempting to provide help here via the development of standards, its own marketing initiatives and awareness-raising and lobbying activities.

CONCLUSION

The data available does not allow for a comparison between countries and continents regarding the cultivation, export

and domestic sales of certified organic products. One problem is that non-certified organic farming is difficult to survey in practice. However, figures suggest that certified organic farming in the South is mainly oriented on export.

With regard to the countries' food sovereignty, it has to be noted that export-oriented certified organic farming should not be generally rejected but that it is not always conducive, either. It depends on the concrete long-term impacts on the peasants. For example, if export goes hand in hand with Fair Trade labelling, it is welcome (see Chapter 15 on this).

13. Is the development of local organic markets an alternative to exporting?

In Germany, organic farming activities in developing countries are perceived mainly via imports of agricultural produce. This above all comprises coffee, cane sugar, spices, fruit and tea. In many cases, the co-operatives had already been producing goods for the conventional export market before they switched to organic farming. So this should not be considered as new dependence.

The export of staple foods would have to be viewed more critically if the latter were being siphoned off the local markets. Here, however, a different phenomenon can be observed. Highly subsidised products (powdered milk, rice, wheat, ...) are exported by Europe and the USA to developing countries, "flooding" the local markets and causing the prices of these products to collapse. As a result, the smallholders are no longer competitive or do not receive cost-covering prices. Here, political solutions are required for agricultural trade.

Local organic movements

Statistics on organic farming can only cover the registered (to be equated here with certified) areas on which products for export are mainly grown. Only little is known about local organic movements. However, the following examples demonstrate other options.

MASIPAG in the Philippines

During the "Green Revolution" in the eighties, the International Rice Research Institute (IRRI) introduced so-called high-

yielding varieties that were to promise bumper harvests. By and by, the danger grew that the more than 4,000 different traditional varieties of rice would largely soon disappear. Only gradually did the MASIPAG farmers realise that these new rice varieties required fertiliser and pesticides for good yields. Also, the peasants had to buy new seed each year. Considerable costs arose, and most of the farmers had to take out loans. In the end, they lost in a double sense: their diversity of rice varieties was gone, and so was their independence. However, rather than simply accepting this, the farmers looked for alternatives. Together with a number of scientists, they decided to start a network and breed their own rice varieties according to their needs. Today, not only have the roughly 30,000 farmer families collected more than 700 traditional varieties of rice, but they have bred over 500 new varieties as well. They have developed an agricultural system based on their own resources and working according to organic principles. With their environmentally friendly cultivation methods and their traditional varieties of rice, the farmers achieve up to 30-percent higher yields. But what is more important is that they have escaped the debt trap and hardly any expenditure remains on their agriculture. The farmers produce goods for their own use and for sale at the local market. "MASIPAGRice" is in demand and has even tempted other farmers to market conventional rice under this name as well. This is why the MASIPAG farmers have started to develop an alternative certification sys-

tem guaranteeing the quality of their produce for their Philippine customers. They had also worked together with other Philippine organisations to set up internationally recognised guidelines for the Philippines. But most farmers are not in a position to fulfil the complicated requirements.

PELUM in Southern and Eastern Africa

PELUM (participatory ecological land-use management) is a network that now exists in twelve countries in Southern and Eastern Africa. Setting it up took almost four years and was concluded in 1995. The activities of the individual country groups focus on disseminating organic farming with special consideration given to traditional and local knowledge. PELUM has more than 150 members in twelve different countries. In Tanzania alone, 29 Tanzanian organisations have joined the network.

Eco-Lógica in Peru

Eco-Lógica in Peru was set up in 1998 with the aim of developing the local market in Peru for organic products. Initially, there were ten members (four producers, three producer groups and three NGOs). They initiated a market in the capital of Lima (BioFeria) with their produce that has taken place each week since 2002. Markets in other towns are also successful. There are initiatives to develop local markets for organic products in many countries, but not all of them succeed. The chief difficulties referred to are a lack of infrastructure (poor roads, no processing plants). But a lack of consumer awareness, high certification costs and the absence of national legislation stifle trade too. Some of these demands have been influenced considerably by experience gained by the European organic market. So the trend that products originating from organic agriculture in developing countries always have to score a premium price at all costs and are therefore only affordable for the rich upper classes ought

to be critically reviewed. Lower input costs (managing without fertiliser and pesticides) as well as higher yields increase farmers' income. And as long as the distance between the producer and the consumer is short (weekly markets, direct marketing), expensive certification is not necessary. What is far more important is restoring the appreciation of good locally grown food both on the part of the producers and the consumers.

At the same time, requirements on local markets and potentials vary considerably from country to country. Even Italy, one of the countries with the largest production of organic food and demonstrably very quality-conscious consumers, has a small but thriving local organic market. Products from a certain region can score very good prices even if they do not bear an organic certificate.

In India, a country that would appear to have a high potential for a local organic market, it is especially fashionable for the upper classes to buy products imported from Europe or the USA, just like in other developing countries. Such "obstacles" have to be cleared in order to be successful on the local market.

CONCLUSION

The enormous growth in international trade with organic products can be made use of to the benefit of farmers from developing countries. But domestic markets for organic products in developing countries have to grow as well if organic farming is to really assert itself in the long run. Also, it would be desirable for the consumers in developing countries to have a healthy diet free of chemicals. Nevertheless, as a first step, even the conventional local market offers an opportunity to sell organic products with an extra profit. The short distances between producers and consumers create trust and make up for the certification costs. Setting up and protecting local markets is important in order to establish sustainable food production in one's own country.

14. Is export-oriented organic production in developing countries environmentally and socially sound?

Ever since organic farming became an issue of development co-operation, the agenda has been dominated by the discussion on the social and economic impacts it has on the living conditions of smallholders. But the environmental effects of export-oriented cultivation are also being questioned.

Is this justified as organic?

For example, the organic pineapple, soy or sugar cane plantations are regarded as problematic. Representatives of environmental organisations such as NABU have doubts whether organic farming is always the best type of agriculture to preserve biodiversity, since developments in the organic sector of the South tend to go towards mono-cultured plantations. This similarly applies to complying with social standards in the sense of the conventions of the International Labour Organisation (ILO). Representatives of development organisations such as MISEREOR point to the absence of clearly defined criteria for the working conditions of farm labourers on organic plantations and to the standards for organics not being explicitly committed to the ILO Conventions.

Global organics? The problem of the energy balance

Who would be prepared to go without coffee, cocoa and chocolate, tea or

bananas in Europe? Still, engaged consumers are discussing the issue of whether organic strawberries from Egypt in the spring and organic trout from east Africa can be accepted as environmentally sound and whether Big Macs with organic ingredients are a contribution to environmental protection. If organic farming is supposed to benefit the global environment, one cannot limit considerations solely to what is happening in the fields. The entire chain of processing, marketing and eating habits has to be analysed.

In this context, mention is often made of the environmental footprint, which describes area consumption of natural resources caused by our demand for energy, farming, settlements, forests and water. The environmental footprint is used to establish how great an area every individual or an individual country requires to maintain a certain lifestyle and whether the available area is sufficient to meet this requirement.

Bernward Geier, IFOAM's Director of International Relations, notes that one will seek in vain any binding provisions on the regionality, seasonality or length of distributive channels in the organic guidelines⁴⁰. So it follows that even a jet-set to-

⁴⁰ See Geier (2003).

mato can be referred to as organic. While “organic” describes organic production methods, as yet, it does not inevitably imply fair, regional trade and seasonality.

It is primarily up to the consumers to get this to change in the future. Here, the standards of organic certification come up against their limits. Even so, organic cultivation and producer associations ought to increasingly address these issues and, for example, set good examples with self-commitment. Geier sums up responsible consumer behaviour as follows: “preferably local and regional - supplemented with organics from all over the world”.

CONCLUSION

Obviously, organic farming in the developing countries cannot meet all demands put on it in the areas of social soundness and environmentally friendly cultivation and trade. As an organic cultivation method, it would be fair to refer to it as the “better alternative” even though it does not represent an ideal solution in all respects. However, understood as a social movement, it comes up against the limits of what organic standards can ensure. Here, hope is placed on increasingly incorporating explicit social labels such as those of Fair Trade.

15. Are organic products traded under fair conditions?

The notion of unequal environmental footprints in the consumption of natural resources can be transferred to the consumption of “human resources” in a similar manner. To provoke debate, the question could be raised how high the consumption of social security and dignity is at different locations and with different products. Social standards aimed at improving working conditions are part of the social human rights and are increasingly gaining significance in the course of globalisation in the political North-South dialogue and among critical consumers - as has also been the case with the criteria of environmental sustainability. Quality seals such as Fair Trade and the voluntary commitment of multinational corporations via codes of conduct represent possible instruments to implement social standards⁴¹.

Such codes of conduct set minimum production standards in the area of human rights and working and environmental conditions and incorporate compliance with the most important ILO Conventions by corporations. However, they merely represent basic demands, for at the level of national legislation in this area, the respective more stringent standards apply. In contrast, the Fair Trade standards go way beyond these minimum social regulations.

⁴¹ One example of this is the International Code of Conduct for the Production of Cut-Flowers (see in the Internet at <http://www.oeko-fair.de/pdf/9.pdf>).

What is Fair Trade?

Fairtrade Labelling Organizations International (FLO⁴²) is one of the largest international economic and social certifying bodies. It controls and certifies around 350 producer organisations in the South the members of which include a total of roughly 800,000 workers' and farmers' families. The basis of certification is the International Standards for Fair Trade. In order to obtain a seal of quality, these norms have to be complied with as a basis for the certification of producers, processors and intermediate and bulk dealers as well as retailers.

In this context, merchants commit themselves to:

- paying a minimum price that has to cover the costs of sustainable production and an appropriate lifestyle for the producers,
- paying an additional price enabling the producer to make development-oriented investments into education and infrastructure,
- a partial advance payment at the request of the producers that prevents any debts arising during the vegetation period,
- the conclusion of long-term agreements enabling long-term planning of production processes and considerable economic security thanks to regular purchase of fixed quantities,

⁴² Fairtrade Labelling Organizations International (FLO).

- transparency and checkability of trade relations and modes of business.

Here, Fair "Trade" refers not only to the marketing channel proper but also comprises the local working and living conditions (e.g. working hours, accommodation) of workers and farmers as well as their right to a say in matters. Smallholders and producers get organised in producer groups and participate in Fair Trade as co-operatives organised as grassroots democracies.



In addition, there are a number of specific production standards defining minimum requirements on the quality, price and forms of processing. Unlike the organic movement, the Fair Trade sector has already made considerable progress regarding the international harmonisation of various standards and developed a common international seal of approval. It is intended to make Fair Trade products easily discernible for the customer via a standard characteristic and simplify cross-border trade. The countries are free to replace their national and private seals (e.g. the TransFair seal in Germany) with the standard international standards and adopt the new seal of quality.

"organically produced" does not automatically mean "fairly traded"

So far, "organic" and "fair" have remained independent initiatives each of which stresses a particular aspect of sustainable rural development in the South. Nevertheless, both among the organic associations and the representatives of Fair Trade, engagement has grown to establish mutual links.

In this respect, Germany's "dwp" trade company (dritte-welt partner GmbH) notes: *"Organic cultivation is playing an increasingly important role in our range of products. This is why we already opted for a course years ago that would combine the advantages of Fair Trade with*

those of organic farming - the result is our fair+bio range (...). In addition, fair+bio ensures that producers can reckon with maximum value added when growing their crops."

Thus, alongside its environmental and social development goals, simultaneous organic and Fair Trade certification also means a lucrative marketing strategy in competing for the development of international markets.

However, the social seals of approval can boast a considerably wider range of products than organic certification, which is restricted to agricultural products. One example is the product range of the trading organisation El Puente Ltd. Out of a total of more than 4,000 fairly traded products, a mere 170 belong to the food category. Out of these, 83, i.e. 49 percent, have already been certified as organic; further products are undergoing the corresponding procedure. And in the case of Fair Handelshaus gepa⁴³, as much as approx. 60 percent of the food range has been organically certified⁴⁴. Out of the 14,400 t of Fair Trade coffee imported in Europe in 2000, 5,600 t, i.e. 39 percent was simultaneously organically certified. Institutions such as the Internet portal oeko-fair.de support such initiatives by providing data banks and background information and announcing events for German consumers and organisations. Thus they are aiding the effort to raise transparency in the growing organic fair market. The portal is based on the results of a project launched in 1998 and titled "Verknüpfung von Öko- und

⁴³ The gepa partners are "Evangelischer Entwicklungsdienst" of the Protestant Church of Germany (EED), the Episcopal Relief Service Misereor e.V. of the Catholic Church, the "Arbeitsgemeinschaft der Evangelischen Jugend" (aej) and the "Bund der Deutschen Katholischen Jugend" (BDKJ).

⁴⁴ The respective statements on product ranges are from personal statements of the respective trading companies in May 2004.

Fair-Trade-Initiative" (linking up organic and Fair Trade initiatives) that has been run by Fair Trade e.V. and involves a large number of environmental and Fair Trade organisations.

So far, however, the anticipated synergy effect regarding the time and costs involved in simultaneous certification with social and organic seals of quality has remained limited in that inspection and documentation relate to very different aspects of production. Also, the development of common standards and inspection instruments is only in its initial stages. In this context, the SASA research project on "Social Accountability in Sustainable Agriculture", which was run by member organisations of the International Social and Environmental Accreditation and Labelling Alliance (ISEAL), represents a highly interesting alternative⁴⁵. Not only does it strive for the goal of developing international standards and implementing instruments for social compatibility in

sustainable forms of agriculture. It is additionally aimed at promoting co-operation between institutions and networks of Fair Trade, Organic Farming, Sustainable Agriculture and social rights.

CONCLUSION

Organic products are not automatically traded fairly. The two systems represent formally independent initiatives each of which has its own standards, controls and seals of approval on the basis of different focal contents. Nevertheless, for a number of years, significant attempts have been made to establish links between the two seals of approval both in trade itself and at the level of international law. This has resulted in the majority of food products in many Fair Trade stores already being organically certified in parallel to the Fair Trade label, and efforts are being stepped up to work out an internationally valid legal basis for the common contents and the development of standards.

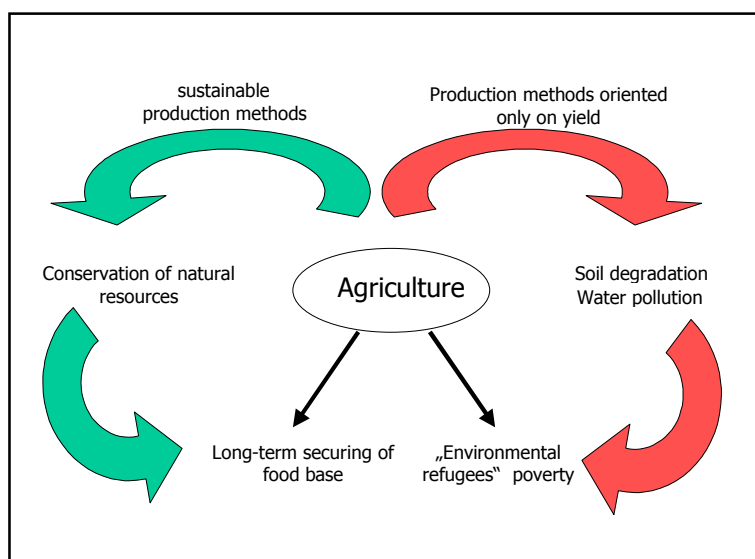
⁴⁵ For further information on the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) and the SASA project, see: www.isealliance.org/sasa/

16. What does organic farming in the South contribute to the protection of the environment and agro-biodiversity?

In spite of decades of conventional farming in the industrialised countries and attempts to apply it in many developing countries, hunger has assumed previously inconceivable dimensions. Methods that have not been adapted locally are tipping the balance of agro-ecological systems while natural resources are being overexploited by short-term yield maximising. Traditional methods branded by prejudice as "old-fashioned" are going lost forever, while high-

yield varieties are ousting adapted local varieties and thus ruining opportunities for farmers' subsistence. Agro-genetic engineering, which agro-economists and representatives of conventional farming have persistently praised as a panacea, cannot solve the problem either, especially since the respective seed including the pesticide accessories it requires is unaffordable for those affected by hunger. At global level, industrialised agriculture simply has no future.

Figure 6: Agriculture: a curse or a blessing for the conservation of natural resources and poverty reduction?



Organic farming attaches particular significance to maintaining a diversified functionality of agriculture. For example, concrete provisions are made in a bid to adapt land use to the respective natural and cultural conditions. To a large extent, organic farming operates as a recycling economy and contributes to conserving biodiversity. Capital and energy intensity polluting the environment and destroying jobs are replaced with organisational, knowledge and labour intensity. Thus organic farming bears advantages inherent in its own system compared to conventional agriculture. It enables the prospect of our being able to produce enough food in the next century without robbing ourselves of our natural resources.

Where precisely can organic farming contribute to the protection of the environment and the conservation of natural resources, and where are its limits?

Compared to a conventional, intensive mode of operation, organic farming will usually be at a significant advantage regarding the conservation of agro-biodiversity in the shape of flora and fauna in cultivated areas - both in the tropics

and in the temperate zones. Only extensive forms of agriculture that are free of chemicals partly operate in an environmentally more compatible manner than organic farming does. With respect to maintaining soil fertility, the positive effects on biological activity and organic substance as well as the avoidance of erosion with mulch and mixed cropping must be noted in particular. Emissions of gases affecting the climate (CO₂, nitrogen oxides, methane) are demonstrably lower than in conventional farming as well.

With regard to the frequently low natural soil fertility of many tropical agricultural locations, nutrient and energy balance surveys are very important. While energy efficiency is generally higher in organic farming than it is in conventional cultivation conditions, the nutrient balances for phosphorus (P) and potassium (K) tend to be negative in particular. Here, it also has to be borne in mind that, on a world scale, in terms of soil quality and precipitation, agriculture in our latitudes is regarded as exceptionally favoured whereas there are limits to integrated animal husbandry or composting of dung and organic waste in the tropics owing to temperature and precipitation. This is why it is justified to regard the P and K bal-

Box 7: *What does the difference in prices between organic and conventional products arise from?*

Organic markets are premium markets, i.e. the products bear additional prices. The mistake made is that it is the organic products that have to justify their additional price and attract the attention of the consumer via respective labelling. It would in fact be more honest for the conventional products to have to justify their "low price". Do they originate from input-intensive agriculture, and does their production entail high environmental costs? However, costs in the areas of air pollution, soil degradation or the loss of genetic diversity are difficult to quantify and assign to a particular polluter, so that they are not contained in the market price as so-called external costs. Society as a whole has to pay for them, e.g. via tax. Even if there is no drop in yield, anyone refusing to cause these environmental costs is accepting an additional effort in the shape of additional working hours, money (e.g. for inspection and certification) and knowledge which the additional price is supposed to compensate for.

ances as the greatest challenge that the long-term productivity of organic farms faces. This is even more the case in the tropics than it is in the Northern latitudes⁴⁵.

CONCLUSION

Organic farming opens up the prospect of producing enough food in the long term without destroying our natural resources. It

can boast a better energy and environmental balance and makes a substantial contribution to conserving biodiversity and agricultural diversity. From a health and environment angle, a further advantage of organic farming that may gain considerably in importance in the future is that it avoids risks of agro-genetic engineering used in some other forms of agriculture that have not yet been sufficiently analysed.

⁴⁶ See Eltun et al. (2002).

Promoting co-operation between environmental, development and organic farming organisations for sustainable and environmentally sound agriculture

Results of a dialogue

1. So far, environmental, development and organic farming organisations have usually campaigned independently of one another for their own concepts of an environmentally sound development of agriculture and rural regions in poor countries. Although they share similar objectives, they set different priorities, and the focal point of their campaigns tends to comprise either nature, the poor or agriculture. However, they jointly pursue the endeavour of promoting human beings and the environment via sustainable development processes.

Nevertheless, situations with a considerable conflict potential will sometimes arise:

- Environmental associations classify some forms of agriculture supported by development organisations as “detrimental to the environment” while the environmental associations are, in turn, accused by the development side of campaigning for environmental protection in poor countries that would make the struggle for survival among the poor even harder.
- Organic farming associations have promoted organic farming along the lines of the European example in developing countries, which the development organisations regard as imposed from above and impractical, while the organic farming associations in turn hold that the development organisations' campaigning for “sustainable agriculture” is too unspecific and random.
- Environmental organisations criticise that the chief environmental problems of the tropics, such as soil erosion, soil salinification or deforestation, have not been sufficiently considered in the standards for organic farming in the tropics.

2. However, environmental, development and organic farming associations can learn much from one another.

- The development organisations contribute their experience with techniques and participatory methods enabling the farmers with their know-how to be integrated into the development of appropriate agricultural systems.
- The organic farming organisations show how smallholder families can benefit from market orientation in earning additional income and becoming more independent of subsidies, e.g. from donor organisations.
- Also, organic farming and development organisations have made the experience that appropriate land use can be compatible with the conservation of biodiversity and that people can thus simultaneously make use of and conserve the biodiversity hot spots.
- In turn, environmental organisations show how sustainably run environmental protection and nature conservation can contribute to the long-term securing of the production basis, from which the poor, whose lives depend especially on making direct use of nature, can benefit in particular in the long run.

3. In a common process of dialogue between environmental, development and organic farming organisations, it has become apparent that organic farming is a genuine alternative for farmers in the developing countries. For one thing, the contradiction between the environment and increases in production is an artificial construction. Food can only be secured for the world's population by an environmentally sound, sustainable agriculture. Second, we regard the chemicals and capital-intensive approach of the "Green Revolution" as well as that of agro-genetic engineering as unsuitable to combat poverty and achieve food security.
4. We are striving for a common concept of "organic farming" that would reflect the common interests of poverty reduction and environmental protection in a consistent context. Here, the three chief objectives of our organisations are at issue:
 - A.) What development options are there for poor farmers' groups?
 - B.) What is the role of environmental protection and nature conservation?
 - C.) How can standards and certification be realised so that no exclusion develops but market access is created?
5. "Organic farming" as we understand it has the potential to meet all these requirements:
 - With regard to nearly all environmental indicators, it can boast clearly positive results.
 - It can enable the rural poor, who live largely in marginal areas of the developing countries, to increase yields, employment and income and improve their living conditions.
 - In the sense of sustainable use, it also makes an effective contribution to nature conservation because the poor no longer need to secure their meagre existence by exploitative forms of land use.
6. However, in certain circumstances, "organic farming" may prove counterproductive in combating poverty:
 - If it is aimed exclusively at certification, marketing or catering for export markets and does not consider the specific locational, socioeconomic or environmental conditions or requirements.
 - If it is restricted to producing high-price luxury articles for niche markets.
 - If "environmental compatibility" is determined too much by the western concept of being "free of chemicals" and not by coping with the difficult environmental conditions in the South, such as the problem of soils with a low nutrient content, extreme topographic conditions, high infestation with pests, etc.
7. The environmental, development and organic farming organisations can benefit from one another via co-operation schemes and develop synergies. Already, there are very promising approaches to more co-operation. They have to be extended and multiplied.

- In several countries, for example, together with development organisations, environmental organisations represent the vanguard of movements criticising globalisation that also focus in particular on the neglected living conditions of the poor and on the environment.
 - Thus IFOAM, the global umbrella association of the organic farming organisations, is increasingly interested in a more open definition of organic farming, also on the basis of increased and more profiled membership of associations from the developing countries. Here, the social standards are gaining importance as well.
 - Thus environmental issues and sustainability are of considerable significance among development organisations.
 - Thus the share of organic products in Fair Trade, which is promoted in particular by the development organisations, is growing considerably and has already reached 50 %. Already, too, there are joint projects aiming at organic/fair labelling in development co-operation.
- 8.** We regard the triangle of aims of “poverty reduction - organic farming - environmental protection and nature conservation” as a key relationship in the development of the poor countries and are convinced that the mutual relations can be further extended. This is why we want to campaign for improvements in co-operation and mutual relations and in the dialogue on policy issues and concepts. Our goal is to increasingly present ourselves together in concert in the German public, at national level in developing countries and in the international arena at UN organisations in order to represent the cause of sustainable rural development more successfully.

Berlin/Munich/Aachen, January 2005

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