

# Value chains

## and the conservation of biodiversity



Selling argan oil from small stalls – one of the many ways of marketing the valuable product from the argan tree. Photo: GTZ

It is crucial to conserve the diversity of useful plant varieties and animal breeds still in existence worldwide: this diversity forms the basis not only for the survival of small farmers in Africa, Asia and Latin America but also of the entire world's nutrition. Yet despite gene banks and plant nurseries, conservation is not guaranteed in the long term. This can best be achieved if farmers continue to use old varieties and breeds, even if they are not as productive or efficient as the modern ones, the reason being that they have other advantages, such as secure yields even in unfavourable conditions.

One way of improving farmers' incomes and thereby preserving biological diversity is to seek new opportunities – or indeed any at all – for selling products made from old plant varieties and breeds ("underutilised species"). It is also a means of reducing poverty and hunger. The term "biodiversity products" refers to products originating from local useful plants and animals that are very well adapted to local conditions, reflect traditional knowledge in terms of their development or processing, and are part of the local culture. Their particular characteristics and cultural connection make them suitable mainly for niche markets.

### Value chains are helpful for planning

The individual stages from production, processing and marketing through to consumption are described as a value chain.

A value chain analyses activities, products and services during the individual stages of the process and does the same with regard to those involved, their relationships and power relations, as well as the exchange of information and knowledge that takes place between them. The value chain approach enables one to look beyond individual sectors and national boundaries at all the stages in the process and all those involved. If support measures are oriented early on towards the marketability of products, sales opportunities later on can be improved.

The marketing potential of a biodiversity product depends both on its characteristics and origin as well as on the type of value chain. To achieve a realistic assessment of the role played by the marketing of biodiversity products in the conservation of endangered varieties of useful plants and animals, it is necessary to know the characteristics both of the products and of the value chain.

### The most important elements in a value chain and their impact on diversity

The most important elements of a value chain are:

- the original product,
- the number of producers and suppliers of the original product,
- the market power of the buyers (individual consumers or large buyers),
- the length of the value chain itself and
- the number of parallel value chains for an original product.

#### The original product

The starting point of a value chain may be an individual species or variety of plant or an animal breed, such as argan trees or grasscutters, or else it may consist of diverse varieties of a single species. The latter is the case with coffee and potatoes, for example. If the value chain develops only a limited amount of diversity – a single species in our example of the argan tree – then marketing the product will conserve only a comparatively small gene pool (see Diagram 1). In the case of Andean potatoes and Ethiopian

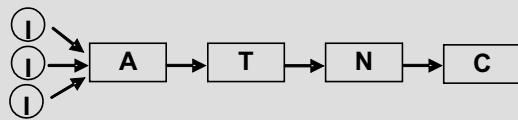
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coffee, for example, a very large amount of genetic diversity is conserved, as can be seen in Diagram 2.

Diagram 1: Value chain with little genetic input



Diagram 2: Value chain with numerous varieties or species as genetic input

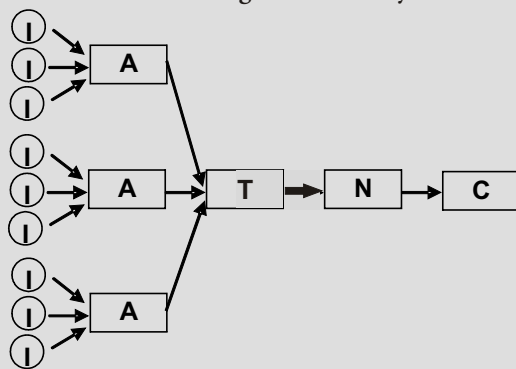


- I genetic input
- A agricultural production
- T transformation
- N trade
- C consumption

## Number of producers

Value chains supplied by many small producers (see Diagram 3) tend to be more helpful for the conservation of agrobiological diversity than those that are served by a few large farms. This is because subsistence farmers and small farmers use considerably more species and varieties than larger farms. The large number of small suppliers also indicates that a production sector is accessible to small producers as well as larger ones. When supplies come from larger farms this can be a sign that standardised qualities are necessary which can hardly be guaranteed by small farms, or that a bigger initial investment in equipment or know-how is necessary, which limits small farmers' access.

Diagram 3: Value chains with many small, non-specialised suppliers frequently use a large amount of genetic diversity



## Market power of the buyers

Value chains that are determined one-sidedly by large buyers are frequently associated with disadvantages for

the producers, who are forced to bow to the buyers' dictates. Coffee is an example of this. There are a few large coffee roasting companies on the buying side and numerous small coffee farmers on the producer side. Certain quality requirements and established standards on the part of the buyers can lead to a loss of diversity. However, if there are people in the companies on the buyer side who are open to new things, this is a constellation that provides an opportunity to integrate niche products in larger quantities into the mainstream market, such as premium or fair trade products in supermarkets.

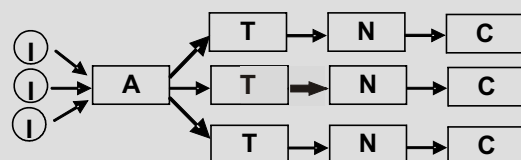
## Length

The longer a value chain becomes, the more points there are at which support measures can be introduced. The number of actors increases, as does the complexity of the circumstances. This occurs in particular when a value chain extends over a large area across country borders. At the same time, long value chains open up new markets, customer groups and foreign know-how in production and processing. This can be at the expense of agrobiodiversity, if it is accompanied simultaneously by a large measure of standardisation of the end product. By contrast, short value chains, in which the original product goes directly from producer to consumer, are conducive to diversity.

## Number of parallel value chains for an original product

Several parallel processing and/or marketing channels for one and the same product (see Diagram 4) make it easier to find a suitable marketing channel for biodiversity products – or to initiate another one – than if only one value chain exists. The various marketing channels facilitate both the purchase of different primary products as well as access to different groups of consumers. The use of argan oil as a cooking oil and in the manufacture of cosmetics is one example of this. The marketing of biodiversity can also occur outside the classical sectors of agriculture and nutrition, for example via tourism, as the establishment of a potato park in Peru demonstrates (see issue paper: "Promoting the diversity of useful plants and animal breeds through marketing – the example of potato diversity in the Andes" in this series).

Diagram 4: Value chain with several processing and marketing channels



## This is how a value chain influences diversity

- The degree to which a value chain contributes to conserving agrobiodiversity depends on the diversity of the original product.
- The presence of many small producers in the value chain favours the conservation of agrobiodiversity.
- If a value chain is dominated by a few large buyers, this may have either a positive or a negative effect on the conservation of diversity, depending on their behaviour.
- Short value chains are more suitable for the conservation of agrobiodiversity than long ones.
- Several parallel value chains for an original product offer a better opportunity for opening up new markets for biodiversity products than is the case with only one value chain.

## Which characteristics of biodiversity products make market access easier?

As is the case with many products, there are particular features of biodiversity products that make it easier to market them. The product's own history can make marketing easier, as can a striking name. For example, "wild" or "forest" coffee from the Ethiopian Highlands can be well utilized in advertising, as the names spark the consumers' imagination. Since this coffee also depends on the shade provided by the forests, every forest coffee drinker is simultaneously protecting the few remaining tropical mountain forests of Ethiopia with their natural coffee growth. This additional benefit of forest coffee can likewise be used for marketing purposes, as it opens up access to more groups of consumers.

Other biodiversity products possess special constituents that make them unique. This is often the case with vegetables, medicinal plants, spices and aromatic plants. It is also good for marketing if a plant grows in just one particular region, as the advertising can then be geared towards selling it as a product with a protected geographical origin. This is the case with the argan tree, for instance. It grows only in Morocco, so argan oil can only be obtained from this country (see also issue paper: "Promoting the diversity of useful plants and animal breeds through marketing – the example of argan trees in Morocco").

The proportion of a biodiversity product contained in an item for sale also influences its marketability. In a medicine, for example, the amount of the biodiversity product may be so small that it is no longer noticeable to the consumer. In the case of forest coffee, 100 % of the end product consists of the biodiversity product, which makes it easier to see the connection between biological diversity and the pack of coffee in the supermarket.

## Which supporting measures are especially suitable for developing the market for biodiversity products?

The analysis (GTZ 2006) of support measures implemented for the four biodiversity products forest coffee, Andean potatoes, grasscutters and argan oil showed that in every case it was important to organise the producers into production or marketing structures; this made it easier to tackle product development, to conduct an exchange of information and to train the farmers. Training included technical, organisational and business management courses, and in some cases basic education as well, such as literacy programmes.

All the programmes or projects developed an intensive strategy of innovation which stimulated cooperation with universities, encouraged the farmers to experiment with and develop practical solutions, and promoted an exchange of information among producers, researchers and experts.

In all four cases the producers were supported in the process of improving the quality and efficiency of their production. The certification and development of labels made the products more marketable. Networks between producers, traders and processors were built up in order to open up new (niche) markets. In addition, norms were created for the production process and for the products themselves, analytical capacity was built up for the purpose of monitoring these norms, legal hurdles were dismantled and property rights clarified.

## What contribution can support measures for biodiversity products make towards reducing poverty and improving nutrition?

Measures aimed at improving the marketing of biodiversity products also offer an opportunity to improve the incomes and living conditions of what are usually poor small farming households. However, this does not happen automatically; it is dependent on various characteristics of the value chains:

- **The division of power (governance) within the value chain**

This may be concentrated so heavily around a few actors that they are able to dictate prices and procedures to the other actors. In this way, the profits accrue not to the households of the poor producers but rather at the level of processing or trading of the product.

- **Opportunities for access to the value chain**

The manufacture of new products usually requires start-up investment in equipment, buildings or education. Poor households can only join in if these initial costs are not too high or if they can be financed through loans or subsidies. Poor people frequently have only a low level of education, and this limits the use of complicated production or processing procedures.

- **The proportion of women among the beneficiaries**

Many poor households are headed by women. Since the division of labour in developing countries is very gender-specific, the participation of women in value chains depends on the kind of activities and products involved. Some activities are culturally inadmissible for women, and in other cases women have been later replaced by men, who took over the activity once it became clear that there was economic benefit to be had from it, as was partly the case, for example, with the highly profitable activity of grasscutter husbandry in West Africa.

## The Issue Paper series "People, Food and Biodiversity" aims to:

- stimulate an interest in the conservation and sustainable use of biological diversity,
- present quickly and clearly concrete actions and experiences,
- explain new concepts and issues relating to the topic of biological diversity,
- encourage and stimulate the mainstreaming of this topic within development cooperation projects and programmes.

**We look forward to your suggestions and experiences so as to enable us to improve this series.**

## Important parties involved in the sphere of marketing biodiversity products

The opening up of markets for biodiversity products is supported by various initiatives and institutions. The Biotrade Facilitation Programme (BTFP) of UNCTAD (United Nations Conference on Trade and Development) promotes contacts between suppliers of biodiversity products in developing countries and buyers in the European Union (EU) via a business to business (B2B) programme. The programme cooperates with the Centre for the Promotion of Imports from Developing Countries (CBI), which also helps to forge contacts in addition to offering market information, help with product development and training measures. BTFP also supports the regional Amazon and Andean BioTrade Programmes as well as several national programmes.

Further support for (biodiversity) products from developing countries occurs through national programmes run by the industrialised countries. The Swiss Import Promotion Programme (SIPPO) provides assistance for initiatives in more than a dozen countries. The Danish Import Promotion Programme (DIPP) provides market information, and on its website there are numerous links to support programmes in other countries (<http://www.dipp.eu/en/linksen.aspx>). In Germany the PPP office at GTZ supports partnerships between private companies and initiatives in developing countries in order, among other things, to improve the marketing of biodiversity products.

### Further information:

CBI: <http://www.cbi.nl/?pag=59>

DIPP: <http://www.dipp.eu/en/about.aspx>

GTZ: <http://www2.gtz.de/agrobiodiv/index.html>

GTZ: [ppp-buero@gtz.de](mailto:ppp-buero@gtz.de)

GTZ and GFU (2006): Value Chains for the Conservation of Biological Diversity for Food and Agriculture. Potatoes in the Andes, Ethiopian Coffee, Argan Oil from Morocco and Grasscutters in West Africa.

SIPPO: <http://www.sippo.ch/>

Stamm et al. (2006): Strengthening value chains in Sri Lanka's agribusiness.

UNCTAD:

<http://www.unctad.org/Templates/Page.asp?intItemID=3791&lang=1>

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