

# **Organic Cotton Project Guide**



# Frank Eyhorn

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# About this guide

The aim of this guide is to support organizers of organic cotton projects<sup>1</sup> in designing and setting up organic cotton production with smallholders, or in re-thinking existing projects. Recognizing that there are many possible ways and approaches in doing this, the guide wants to stimulate reflection and provide ideas rather than giving final answers and prescriptions. The guide does not deal with the processing of the cotton fibre and the trade of cotton products.

To a large extent, the guide builds on an in-depth research project on organic cotton that the Research Institute of Organic Agriculture (FiBL) implemented on behalf of the Swiss Agency for Development and Cooperation (SDC) and the World Wide Fund for Nature (WWF). Focus of this research was the Maikaal bioRe project in central India, one of the oldest and largest organic cotton projects worldwide. In addition, we have included lessons learnt from other organic cotton projects in India, Mali, Tanzania, Benin and Kyrgyzstan that we have either visited and interviewed, or explored with the help of a questionnaire.

We are aware that approaches which have worked in one setting might not work in another setting. Designs and solutions to problems need to match the specific socio-economic conditions of the project area, and need to be developed by the involved stakeholders themselves. The quality of the process of doing this is likely to be at least as important for the success of the initiative as the final design. The guide therefore addresses important issues and project elements in the order as they are likely to emerge within a project development process. It describes the aspects, provides examples and points out alternative design options. It can not take away from the organizers the burden of deciding which of these (or other) options are most suitable in a specific setting. At the end of each chapter, a box with questions is intended to stimulate project organizers to think about and make decisions on crucial issues. In this way, the guide leads the reader through the single steps in setting up an organic cotton smallholder project as depicted in the flow chart in Annex 1.1.

Organic cotton farming with smallholders is still a relatively new field, and the experience to draw from is limited. It is also a field that is in continuous development, and the same is true for this guide. Due to constraints to study more projects in detail and due to limited resources, this guide can only be a first basis to elaborate on. Therefore, readers are most welcome to provide their feedback to the guide and to share their experience with us.

<sup>&</sup>lt;sup>1</sup> With the term 'organic cotton project' we do not only mean externally supported development activities, but all initiatives and ongoing efforts to organize farmers for organic cotton production.

# 1 Defining project objectives

#### 1.1 The needs: Cotton farmers in crisis

Why would organisations, government agencies or companies be interested to set up organic cotton projects? One motivation might be to build up organic cotton supply in order to meet customers' market demand. Another motivation, especially of NGOs<sup>2</sup> and government agencies, could be to pursue developing objectives like poverty reduction and sustainable use of natural resources through organic cotton farming. Even if commercial motives pre-dominate, most consumers of textiles labelled organic will not only expect that the organic clothes contain less pesticide residues, but also that the organic cotton projects with smallholders in developing countries and in countries in transition thus should aim to effectively address the problems inherent in conventional cotton farming. Crucial problems of many smallholder cotton farmers are:

- Low productivity of the land due to degraded soils;
- Acute and chronic health problems of the farmers and farm workers related to pesticide application;
- Resistance among cotton pests due to continuous pesticide application and elimination of natural enemies of pests;
- Production costs (especially for chemical fertilizers and pesticides) that are high compared to revenues;
- Indebtedness due to high production costs and risk of crop failure (droughts, floods) or drop in prices;
- Irrigation water scarcity in drought prone areas.

This list illustrates the multitude of topics to be addressed by a project. In order to design projects adequately, it is important to understand the farmers' values, traditions, emotional ties, their pride and self images, and their own development objectives. Participatory techniques such as PRA<sup>3</sup>, and holistic approaches like sustainable livelihood frameworks<sup>4</sup> can help project initiators to gain a thorough understanding of the farmers' livelihoods. In doing this, it is necessary to recognise and document the diversity of livelihoods, so that different farm types can be approached with different solutions. Though the focus naturally may be on cotton as the main crop of interest, projects should also consider the relevance of crops grown in rotation with cotton (hereafter referred to as rotation crops) for income and subsistence, and for the sustainability of the farming system.

#### 1.2 The potential of organic cotton farming for poverty reduction

As a response to the crisis in the cotton sector, a number of development agencies, NGOs, but also companies have started projects to support the farmers in improving their situation. Many of these projects focus on the reduction of pesticide application through introducing integrated pest management (IPM)<sup>5</sup>. Organic cotton farming as an approach to reduce poverty is a relatively new concept. Experiences from organic cotton projects have shown that conversion to organic farming in the long run can help farmers to get better and more stable incomes while maintaining or improving their production base and using natural resources more efficiently. Results of a research project focusing on the organic cotton production of Maikaal bioRe in central India showed that, after a conversion period of three to four years, yields were at par

<sup>&</sup>lt;sup>2</sup> Non-governmental organisations

<sup>&</sup>lt;sup>3</sup> see for example www.iisd.org/casl/CASLGuide/PRA.htm

<sup>&</sup>lt;sup>4</sup> see www.livelihoods.org and Baumgartner/Högger 2004

<sup>&</sup>lt;sup>5</sup> for example organisations like FAO, WWF and PAN have supported projects on IPM in cotton

with those in conventional farms, while production costs were lower<sup>6</sup>. Along with a price premium received for organic cotton fibre, conversion to this farming system enabled many of the involved farming families to significantly improve their livelihoods and get out of debt.

In smallholder farms, cotton is usually grown in rotation with various food crops that also need to be cultivated organically if the farm is to be certified organic. If cotton based organic projects also manage to gain access to organic markets for these rotation crops, the potential for improving farmers' incomes is even greater. The possibility in organic farming of connecting with market partners who operate in a loyal and fair partnership with producer groups (e.g. in a Fair Trade<sup>7</sup> setting) can further help to reduce farmers' vulnerability to market price fluctuations.

Therefore, the aim of this guide is to enable organisations like farmer groups, development organisations and government agencies, but also processing companies or traders, to make use of this potential of organic farming to contribute to rural development within a sustainable commercial setting.

#### Vision and scope of the project: Key questions

- What is the motivation and the vision of the organizers to convert to organic farming?
- What are the main problems and constraints of the target farming community?
- Which of these problems and constraints does the project want to deal with, and which are beyond its scope?
- What do the farmers think about the idea of growing cotton organically?
- Shall the project be limited to cotton, or shall other crops and other livelihood aspects be addressed as well?
- How will the project be linked with the processing and trade chain?
- What is the desired impact that the project shall have in 2 years / 5 years / 10 years?

# 2 Market research

# 2.1 Finding markets for organic cotton

Before starting to set up an organic cotton project, explore the actual market prospects for organic cotton. At the time of writing this guide the demand for organic cotton exceeded production to some extent, and experts expected the market for organic textiles to grow considerably in the coming years. With large apparel brands like Nike, Timberland, Patagonia and IKEA, and retailers like Marks & Spencer (GB), Monoprix (F) and Coop (CH) increasingly using organic cotton lint, demand could rise considerably. On the other side, many new organic cotton initiatives have started recently, so production also is picking up. As requirements of buyers do not always match with what projects can offer, not all organic cotton produce finds a market. One should therefore carefully explore the actual market situation and trends, keeping in mind that it will take at least two to three years until the project is in a position to sell certified organic cotton in significant quantities. Even if the project has an ensured commitment of a buyer from the beginning, it might still be worth exploring the market situation in order to keep doors open for being flexible.

Market research can help to decide which quality specification of cotton the project shall be targeting. Different types of final products require different fibre qualities. The production of high quality shirts, for example, requires longer and stronger fibres than underwear or linen. Shorter fibre on the other side might still be useable for manufacturing feminine and personal hygiene

<sup>&</sup>lt;sup>6</sup> see www.organiccotton.fibl.org; Research Report and Executive Summary

<sup>&</sup>lt;sup>7</sup> Trade relationships between farmers in developing countries and importers, following specific criteria; see www.fairtrade.net

products. The demand for different cotton qualities might therefore differ considerably. It is beyond the scope of this guide to provide detailed guidelines for conducting market research on organic cotton. We suggest new projects to get professional advice in this matter by traders or consultants who are familiar with this specific market. The Organic Cotton Directory of the Pesticide Action Network provides a range of addresses that are useful for finding suitable contacts<sup>8</sup>. Organic Exchange, the business platform of the organic textile industry, also provides links and information<sup>9</sup>. It might also be a good idea to attend the InterCot conference on organic cotton<sup>10</sup>.

Which markets the project targets will also have a certain influence on the certification requirements. Different importing countries and regions apply different organic standards (e.g. the EU, the USA, Japan; see Annex 1.2). In addition to organic certification, some buyers might require further certifications such as EurepGAP, HACCP, Fair Trade or SA 8000. This may have some implications for project design and choice of the certification body as well (see Chapter 8.3).

Besides fibre, the cotton crop also produces seeds, accounting to two thirds of the weight of the harvest. Cotton seeds are mainly utilized for extraction of edible oil, and the remainder is used for cattle feed. It might be worth exploring markets for organic cotton seed products as well. Other possibilities for value addition to cotton involve using waste materials like cotton stalk, ginning waste and linters (small fibres, extracted at the gin). However, presently there is only little information available on these options<sup>11</sup>.

#### 2.2 Organic markets for rotation crops

Cotton will only be one of several crops grown by the farmers in the project. Many projects so far have been focusing on cotton, neglecting the rotation crops – both in the extension work<sup>12</sup> as well as in the marketing. However, when the entire farm converts to organic management, all produce is under organic certification. If projects manage to sell also some of the rotation crops with an organic price premium, the economic benefit for the farmers and the sustainability of the project may increase considerably. It is thus crucial to check out marketing options for the rotation crops right from the beginning. Guide books on how to conduct simple and rapid market research, and some sources of information on the organic market are listed in Annex 1.2.

Market research in the initial stage of the project allows adjusting the cropping system to rotation crops that are likely to find a demand in the market. Of course, when selecting rotation crops marketing options need to match possibilities to grow crops of the required quality in the particular region. Also, the crop should be convenient for the farmers concerning timing and labour requirement, and interesting in terms of profit.

It is not necessarily only international markets that offer opportunities for getting a better price for organic products. In some countries, an increasingly health-aware middle class is showing interest in organic food items. It is therefore advisable to check market potentials on the local, national as well as the international level. Local marketing initiatives can help to develop new markets for organic food crops (see Chapter 9.3). When looking for marketing options, it is a good idea to explore several possibilities at a time, in order to avoid dependency on one buyer, or even ending up with produce that does not find a market at all.

One project that we had asked about their experience in marketing rotation crops concluded: "Don't fuss and wait; just go for it!"

<sup>&</sup>lt;sup>8</sup> www.organiccottondirectory.net

<sup>&</sup>lt;sup>9</sup> www.organicexchange.org

<sup>&</sup>lt;sup>10</sup> www.intercot.org

<sup>&</sup>lt;sup>11</sup> The Central Institute for Research on Cotton Technology (CIRCOT), Mumbai, researches the feasibility of use of cotton by-products. www.circot.res.in

<sup>&</sup>lt;sup>12</sup> The term 'extension work' refers to the support and advice that the project team provides to the farmers.

#### Responding to market demand: Key questions

- Who buys organic cotton and might in future be interested in cotton from the project?
- What are the quality specifications requested by the market? Which products do you target?
- Which cotton varieties that are suitable for the area can achieve these quality specifications?
- For which rotation crops that can be grown in the area does a demand exist on the organic market (local, national, international markets)?
- What do farmers think about growing these crops organically?
- Can you find trade partners interested in entering into collaboration with the project?
- What will the project do with the in-conversion products in the first years?

# **3 Finding partners**

#### 3.1 Partnerships with processing and trade

Compared to most other crops, a particularly large number of processing steps are involved to turn the cotton harvest (seed cotton) into final products (garments, bed sheets, towels etc.). A cotton supply chain from the producer to the consumer therefore involves a range of different actors (Figure 1). Farmers or farmer groups, usually supported by a centre that provides extension services and inputs, form the basis of the production. Processing the harvested seed cotton into yarn involves cleaning, ginning and baling (in a ginnery), and spinning (in a spinning mill). After this, the cotton yarn passes the processes fabric formation, finishing, dying and stitching in the same or in different processing units, before the final garment is sold in retail outlets. For a smooth functioning of the supply and processing chain, all partners need to understand and respond to the needs and requirements of the others in the chain.

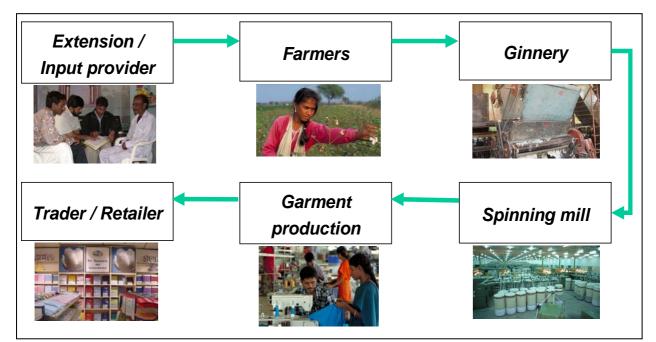


Figure 1: The actors in the cotton supply and processing chain. (Photos: Remei AG/Böhling, Coop).

Organic cotton projects mostly deal with the production of lint only (including ginning and baling), while the remaining processes are looked after by the buyers of the cotton lint. Many textile brands and retailers have established ties with the processing industry, and they will decide which companies will process the organic cotton lint according to their specific requirements. If organic cotton is used for blending into conventional garments, there is not much adaptation in the processing chain needed. When the final product is to be labelled as 100% organic, the following aspects need to be considered when building up the processing chain:

- Achieving sufficient quantities to make separate processing of organic lots economical.
- Separation of organic and non-organic cotton throughout the chain.
- Avoiding contamination with material prohibited or undesired in organic textiles.
- If the product claims to fulfil social standards: ensuring compliance with the respective standards on all processing levels.

It is advisable that organic cotton projects establish links early with strong and competent processing or trade partners that have a serious interest in supporting organic production. If the project is initiated from a processing or trading company itself, naturally they will require that the project sells its cotton exclusively to their company. In turn, the project can expect considerable support, for example that the trade partner pays for infrastructure, extension services and certification. On the other side, farmer groups might wish to keep a certain independence so that they are free to sell their produce to different buyers. Both settings can work very well, and it is up to the project – and its partners – to decide on what arrangements are the most suitable. In any case, the nature of the relationship between the farmers and the buyers will have a crucial influence on all subsequent steps in building up an organic cotton project.

#### 3.2 Technical and moral support

Setting up an organic cotton project requires expertise in various fields: rural development, project management, organic cotton farming, certification issues, textile engineering, marketing etc. Project organizers<sup>13</sup> may wish to access information and technical advice in the fields they are themselves not sufficiently familiar with. While there is a lot of information and expertise available on rural development, project management and marketing in general, options are narrowing when it comes to organic cotton production. Annex 1.2 lists information sources for organic farming in general (including certification and internal control systems) and for organic cotton in particular. Addresses of institutions and consultants experienced in organic cotton can be obtained from the organic cotton directory of the Pesticide Action Network<sup>14</sup>.

It is important to explore whether and to which extent regional agricultural extension services or agricultural universities should be involved in the project. They might already have worked on organic cotton issues, or are interested to do so. Some projects decide to out-source the technical support to NGOs, or to team up with government agricultural extension services. This can be a way to take in competent technical advice, to keep overhead costs low, and in case of projects that receive development funds - it can help to ensure the sustainability of the project once the support ends. On the other side it can also result in a loss of control over the project development, especially when the partners do not share the same ideas and principles concerning organic farming, or when vested interests come in.

To ensure that the project is well received and not hindered by local authorities and leaders, it is a good idea to inform them early about the planned initiative and invite them to be part of it. Media work can help to make the project known among the local population and farming communities, and to create a positive image. This could include information seminars for farmers or open house days, ideally covered by newspaper articles or local radio.

<sup>&</sup>lt;sup>13</sup> The group of people who initiate or operate the organic cotton project. Depending on the project type this can be a farmer association or cooperative, an NGO, a government agency or a private company.

<sup>&</sup>lt;sup>14</sup> www.organiccottondirectory.net

#### 3.3 Financial support

Building up and running an organic cotton project requires funds: to pay for salaries of the project management and extension staff, to purchase infrastructure and material (for offices, storage, transportation etc.), for external certification and to run the internal control system, to pay for consultancy and other external services, for marketing etc. During the initial years of the project, additional development costs may incur for building up the organisation or company, for market research, and for separate processing of small quantities. These costs can be covered by the project itself, by the processing or trade partner, or by a donor or support scheme. If the project is to be independent and cost-effective in the long run, it either needs to generate sufficient income from the sales of the organic produce, or it needs to charge farmers a fee. As a rough guideline, total overhead costs should not add more than 10 per cent to the cost price after 2-3 years<sup>15</sup>.

Most farming communities will probably find it difficult to cover all these costs on their own. On the other side, covering at least part of the costs will give them real ownership on the project and will ensure their commitment (see Chapter 4.1). If a processing or trade partner covers these costs, it will usually be in return for exclusive purchase rights. Many farmer based organic cotton projects are initially supported to a certain extent by external donors - NGOs, government sponsored programs or foreign development cooperation agencies<sup>16</sup>. In some cases, organic cotton projects can benefit from national support schemes for agriculture – e.g. start-up capital for farmer cooperatives, support for training and extension activities, covering of certification costs and contributions to building infrastructure. Check with local or national authorities for the availability of such programs. Projects supported by donors or government agencies should think early about how they will finance their services once the external support ceases (see also Chapter 6.1 for financing the extension services). For the sake of sustainability it is important to analyse the likely minimal cost structure that is needed to cover basic services and ensure these are self-funding. Often a combination of services, like input supply, micro-credit, technical advise and certification can be paid for from the additional income it enables the farmers to make. Ideally, the project costs should be far less than the benefit it delivers to the farming community.

# Building the supply chain: Key questions

- Which processors or traders are willing to enter into collaboration with the project?
- Does the project wish to establish exclusive or flexible relationships with processing or trade partners?
- Who will own the organic certificate?
- What technical know-how is available within the project team, and what is lacking?
- Who will advice the project on technical issues? What collaborations will be established?
- Who will cover the costs of setting up and running the project?
- Are support schemes for farmer groups or for organic farming available in the country?

<sup>&</sup>lt;sup>15</sup> see Myers & Stolton (1998), chapter 4

<sup>&</sup>lt;sup>16</sup> Some agencies that have supported organic cotton projects are GTZ (Germany), Sida (Sweden), SECO and Helvetas (Switzerland), Oxfam (GB), ICCO and Solidaridad (The Netherlands)

# 4 Farmers' participation

#### 4.1 Project ownership

With the term 'project ownership' we not only refer to legal ownership - e.g. the shareholders of the company or the members of the cooperative – but also to emotional ownership. Who feels: 'This is our project, I am part of it.'? Experiences from many organic projects show that it is crucial for the project success that the involved farmers feel that they have a stake and a say in the project. This requires that project initiators not simply view farmers as beneficiaries, but that they respect them as partners with their own objectives, as experts in their field, and as people who wish to actively shape their lives and businesses<sup>17</sup>. The degree of emotional ownership by the farmers has a strong influence on many aspects: the way decisions are being made, the acceptance of training and extension contents, the farmers' motivation to further improve the system, the guality of negotiations of conditions and prices, the functioning (and the costs) for the internal control system, and - last but not least - the degree of non-compliance with organic standards. Legal project ownership is likely to increase emotional ownership feeling among farmers, but even if the project legally belongs to a company or an NGO, it is possible to build up emotional ownership. For this, it is crucial that the organizers take farmers' participation serious from the beginning. Involving farmers or their representatives in project design and decision making in a genuine way helps building the necessary trust between the project organizers and the involved farmers. Moreover, projects with a high degree of farmer involvement will require less project staff and thus can run with lower overhead costs.

To what degree farmers are actively involved is first of all reflected in the organisational set-up of the project and in the decision making processes (see Chapter 5.1). Projects that consider entering into trade relationships that are certified as 'Fair Trade' in any case need to fulfil certain requirements concerning the participation of farmers in decision making as specified in the respective Fair Trade standards<sup>18</sup>. Additionally, Fair Trade certification requires inclusion of farm workers as project beneficiaries.

#### 4.2 Selecting farmers

Obviously, the farmers are the basis of any organic cotton project. Their commitment and reliability, but also their capability to manage their farm organically and to produce good yields of satisfactory quality, will largely decide the success or failure of the project. The types of farmers involved in a cotton project may differ depending on the project type: projects initiated by NGOs mainly target poor and marginalized farmers, while projects initiated by the processing or trade industry might prefer larger farms in order to reduce overhead costs for extension and certification, and to get sufficient quantities of cotton. Projects initiated by farmers themselves might consist of progressive and rather well educated farmers who are ready to take the risk of entering into new fields. When setting up a cotton project from scratch, it is useful to have a clear vision of the farmers the project wants to target. At the latest when the project. Table 1 provides a list of possible criteria for a project that aims at improving the livelihoods of marginalized smallholders. This list shall only serve as an example – each project will need to define its own set of selection criteria to address a target group suitable to the specific project objectives.

It is a good idea to involve the farmers themselves in selecting new participants for the project, for example by forming a committee of farmer representatives and project organizers. To get new farmers interested in joining the project, start with information meetings in the targeted villages. Be careful with promotion and promises. Rather make the farmers aware what they have to expect if they decide to convert to organic farming, and what the challenges are that

<sup>&</sup>lt;sup>17</sup> Viewing farmers as partners and actively involving them in project design has become a widely excepted principle in development cooperation.

<sup>&</sup>lt;sup>18</sup> see for example www.fairtrade.net  $\rightarrow$  Generic standards and standards for seed cotton

they are likely to encounter during the conversion process. Invite practicing organic farmers as resource persons to share their experience.

Careful selection and involvement of farmers with high commitment to the project also helps to keep overhead costs for extension and certification low. Farmers who drop out after few years, or get defaulted in the inspection, are a severe loss for the project. It is more advisable to start with a small, but committed group of farmers than to immediately involve large numbers. This allows the project organizers and the extension team to gain experience, and the farmers to build confidence and establish social ties within the group.

Selection criteria	Reasoning
Minimum land holding of X ha	To justify the effort of training, inspection etc., and to ensure that sufficient crop rotation is possible.
Maximum land holding of Y ha	To avoid that a few farmers dominate the others. For certification (organic with an internal control system, and for Fair Trade), there are certain conditions on landholding size to qualify as a smallholder project.
Suitable location	To keep travelling of project staff to a manageable extent, farms should be located in clusters and should be accessible.
Isolation from areas with high input use	To avoid contamination from neighbouring farmers (run-off and drift of chemical pesticides and fertilizers).
Holding some cattle	To ensure the availability of organic manure. (Note: Cattle stocking rates may be increased during conversion).
Practising crop rotation	If the farm only grows cotton, it will be difficult to introduce rotation crops that are necessary to ensure maintenance of soil fertility and prevention of pest infestation.
Poor to medium-wealth farmers	In case the project aims for poverty reduction (development objective). In some projects, drop out rates were higher among wealthy farmers.
Interest in / familiarity with organic farming practices	So that the farmer already has an idea about what conversion to organic farming means in practice, and already has some experience with organic methods.
Main motivation other than price premium	Organic farming requires adoption of a holistic approach. If the farmer is interested in improving soil fertility, avoiding chemical inputs or reducing production costs, he or she is more likely to manage conversion successfully.
Sincerity and reliability	To ensure the integrity and credibility of organic farming, it is crucial that the farmers in the project stick to the standards and do not try to 'cheat'.

**Table 1:** Example of a set of selection criteria for new farmers in an organic cotton project.

#### 4.3 The role of women in the project

In many farming communities women do a considerable part of the farm work and have an important role in the farm household, while decisions are still mainly made by men. In organic farming their role is even more important, as activities that are traditionally looked after by women – family health care and nutrition, animal husbandry, storage and processing of farm yard manure, weeding – have a higher priority in the organic system. Therefore, apart from gender equality considerations in general, greater involvement of women has practical implications as well.



In order to involve women more actively, project organizers first of all need to understand and recognize the role of women in the farm household. Including gender issues in trainings and project meetings can help to increase the competence and awareness of project organizers and project staff on how to involve women more actively. Some organic cotton projects give preference to women farmers, and ensure that women participate in training sessions and on committees. Others include micro-credit services in which women play a crucial role.

It is important to understand what hinders women from participating more fully in project activities, and to try overcoming these hurdles. Obstacles to women's participation could for example be the time required for water fetching, illiteracy, or social norms. Encouraging the formation of women groups and offering training specifically for women can help to achieve higher involvement of women in the project and strengthening their position and self-confidence.

#### Making farmers into partners: Key questions

- What kind of farmers does the project target? What does the ideal 'mix' look like?
- What are the criteria for selecting farmers, and who will decide whether to take in an applicant?
- What are the motivations and expectations of the farmers to join the project?
- What are the key points farmers should understand before joining the project?
- What legal status shall the farmer group have (e.g. informal group, association, society, cooperative, shareholding company, producer company etc.)?
- Who will be the legal owner of the project? What is the farmers' perspective on this?
- How will the farmers contribute to building up the project (capital or in-kind contribution)?
- How will farmers be involved in the decision making? How will they share the responsibility?
- What role do women have in the project? What are the obstacles to their participation, and how can they be overcome?

#### 5 Defining the project structure

#### 5.1 Organisational set-up

Generally, we can distinguish two project types: projects based on the processing and trade industry (contract farming), and farmer based projects (cooperatives or associations). Most of the earlier organic cotton projects were initiated by companies involved in processing and trade of cotton yarn or garments. They motivated farmers to convert to organic cotton production and provided them with technical support and agricultural inputs. In this way, the supply chain is developed from the market backwards to the production level. A big advantage of this project type is that the farmers have a strong market partner committed to buy their cotton and ready to invest into the development of the project. Nowadays, more and more farmers and farmer groups themselves consider conversion to organic farming, sometimes facilitated and supported by NGOs or government agricultural extension agencies. This project type is more likely to build emotional ownership among farmers; provided a strong and democratic organisation can be formed and vested interests are kept out. It also allows selling cotton and other crops to different buyers and thus reduces dependency. Major challenges for such projects, however, are to raise the necessary funds to develop the project, and to find processing and trade partners for the produce.

Figure 2 depicts an example for an organisational structure of a farmer based organic cotton project. In this setting, farmers of individual villages or clusters of villages form farmer groups, usually with elected group leaders who represent the members in the board of the association or cooperative. The farmer groups are important interfaces between the project management

and the individual farmers. They can facilitate extension activities, distribution of inputs, record keeping, internal inspections, and collection of produce. Extension staff of the project support the farmer groups in organisational and technical matters, and facilitate exchange of experience among the different farmer groups. The project centre conducts trainings, arranges for technical advisory service, and runs the internal control system. The centre also handles all administrational matters of the project, including the purchasing of the produce and the payment of premiums. In many cases the project looks after the ginning and baling of the cotton, either in its own facilities or through contract work. Being the holder of the group certificate, the project centre can negotiate with different processing and trade partners about terms and conditions of selling cotton or rotation crops. The processing and trade partners, too, may sell the produce to different retailers.

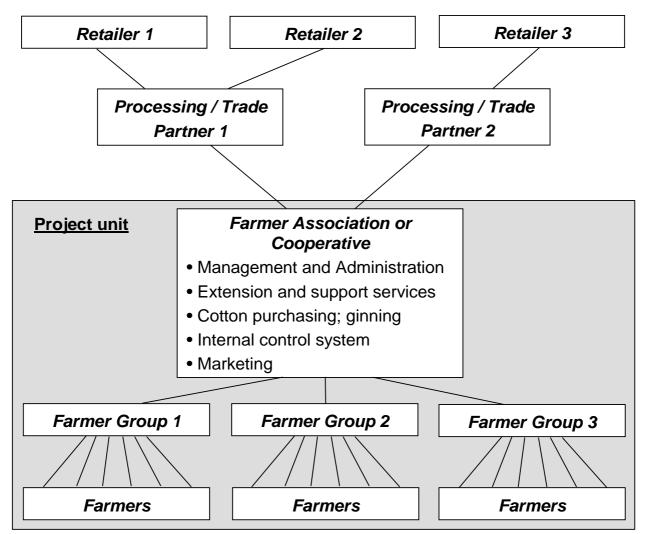


Figure 2: Example for an organisational structure of a farmer based organic cotton project.

A crucial question is how the management of the project is organized. The management must be able to plan the development of the project (business plan, budgets etc.), define structures and processes, represent the project to partners and the public, review the project performance and decide on necessary adaptations.

Projects that are registered as a society, association, cooperative or shareholding company need to consider the respective rules of the country. In these projects, representatives elected by the members usually form the management board (e.g. one from each farmer group), along with an elected president and an executive director. Representatives of other stakeholders like NGOs or processing and trade partners might be included as well. If the project is owned by processing or trade partners, their representation and say in the management will naturally be

higher. In this case it is still a good idea to actively involve farmers (or their representatives) in the management of the project, so that real emotional ownership can be built up. It is important to ensure that farmers understand and share the idea of the organisational set-up. In the initial years it might be useful to start building trust and coherence at the level of the farmer groups, and to facilitate the formation of an association or cooperative once they have developed confidence and strength.

It is obvious that the project also needs a competent and clear administration, capable of handling:

- Accounts, payments and receipts;
- Registration of farmers;
- Personnel administration;
- Maintenance of databases;
- Logistics of distributing inputs and collecting cotton;
- Generation of management information;
- Develop administrational procedures and formats.

We recommend describing the project structure, the major processes and the roles of the different project elements in an operating manual. The operating manual serves as a guiding document for all staff, and is the basis for periodic reviews of the project (see Chapter 10.2)

#### 5.2 Support services

To support farmers to produce cotton organically, most organic cotton projects provide the involved farmers with the following services:

- Informing and training the farmers on organic farming;
- Providing technical advice on production issues;
- Facilitating farmer-to-farmer exchange;
- Identifying buyers for the organic cotton and handling the sales;
- Purchasing the cotton with an organic price premium;
- Operating the internal control system (ICS);
- Supporting the farmers in maintaining farm documents for certification;
- Organizing (and paying) for external certification.

In addition, some projects provide further support to the farmers such as:

- Organizing or supplying farm inputs like organic manures (e.g. de-oiled cake of castor, sugar cane press mud, bone meal), natural mineral fertilizers (rock phosphate, muriate of potash, lime etc.), organic pesticides (e.g. neem preparations, Bt-sprays, NPV-sprays) and untreated cotton seeds of suitable varieties.
- Providing credit for purchasing inputs or infrastructure.
- Financial or in-kind contribution to building compost structures, bio-gas plants, cow sheds etc.
- Organizing the ginning and establishing links with the processing chain
- Organizing markets for the organic rotation crops.
- Support in participatory technology development and research.
- Networking with other farmer groups and projects.

There are different views on whether it makes sense to provide financial or in-kind support to farmers in the form of farm inputs, infrastructure and credits. On one side, to purchase material input for organic farming or to finance infrastructure can be a severe obstacle for marginal farmers to convert to organic farming. Especially during the conversion period, many smallholders find it difficult to bear losses due to initially lower yields. The support can help them to overcome these hurdles. On the other side, providing material support might attract farmers whose main interest is not organic farming but to get these benefits. They might drop out from the project once the support stops.

Thus, projects should carefully consider whether they want to provide material support, and if so, on which conditions. Rather than providing inputs for free or at subsidized rates, projects could facilitate group orders and transportation, or encourage local shops to include these items in their product range. Some projects provide the farm inputs at market rates, adjusting the bills with a part of the due price premium of the previous year. In the case of financial support and credits it might be more sustainable to initiate micro-credit schemes (possibly with a certain back-up guarantee by the project) or saving groups rather than directly providing the money. The design of support services will also reflect whether the farmers are considered – and feel as - beneficiaries or partners.

#### Choosing an organisational set-up: Key questions

- Who will be the partners involved in the cotton chain? What are the roles of the different stakeholders?
- What is the legal status of the organisation? What rules and regulations apply?
- What will the management of the project look like? How are the different stakeholders represented?
- How will the individual farmers be organized? How will they have a say in the project?
- Which support services will the project offer to the farmers?
- How will the project facilitate self-help activities of the farmers?
- Who will be in charge of the project administration? What are the procedures?
- How will the project handle the processing and marketing of the rotation crops?

#### 6 The extension team

#### 6.1 Role of the extension team

With the term 'extension team' we summarize the staff in an organic cotton project who provide training and technical advice to the farmers, organize the farmers and farmer groups, and intermediate between the farmers and the project centre. In many projects the extension team is also involved in distribution of farm inputs, internal inspections and purchase of cotton and rotation crops. In most cases, the costs of the extension service (salaries, infrastructure, expenses etc.) are covered by the project. To be cost-effective, in the long run the project needs to generate sufficient income from selling the organic produce. Another option is that farmers pay a certain fee for the extension services. This can also help to create of ownership and make extension services more demand-oriented, as extension staff are accountable to the farmers. There are a number of new approaches on financing extension services<sup>19</sup>, and it is worth thinking carefully about what concept suits the project most.

<sup>&</sup>lt;sup>19</sup> see 'Innovative approaches to financing extension for agriculture and natural resource management', www.lbl.ch/internat/services/publ

The extension team can either be based in the project centre and from there visit the farms, or the staff stays in de-centralised extension offices that are in charge of one or several farmer groups or villages. De-centralized offices have the advantage that the extension staff are closer to the farmers. The offices can serve as meeting places for the farmers, and can be utilized for the distribution of inputs and the purchase of cotton and rotation crops. However, renting and staffing several extension offices causes high overhead costs. Staff staying at the extension offices may get detached from the project, and interaction with colleagues becomes more difficult. Alternatively, simple farm centres can be set-up and managed by the farmer groups themselves – for example the house of one member could serve as a meeting place and cotton collection centre.

To ensure that the extension work is effective and efficient, projects should discuss and clearly define the role of the extension team. Constituting an interface between the project management and the farmers, the extension team will need to respond to two different sets of requirements: on one side, they need to ensure that the project objectives are met and procedures and directives are followed by the farmers, and on the other side they need to cater to the problems and needs of the farmers. Only if the extension team manages to effectively support the farmers in solving their field level problems, the project will succeed. Therefore, it can be useful to actively involve the farmers in defining the contents of extension, and in reviewing it in periodic intervals. This can happen through regular meetings between farmer representatives and the extension team in which extension services are discussed and agreed upon. Regular evaluation of the extension team should include getting feedback from the farmers on how satisfied they are with the provided services, and what they think should be changed.

Extension staff must be able to build awareness among farmers for the core principles of organic farming, like the eco-system approach, the central role of soil fertility, closed nutrient cycles and ecological balance<sup>20</sup>. If the team manages to convey the philosophy of organic agriculture it is more likely that farmers wholeheartedly stick to organic farming practices. However, extension teams should not promote organic farming by telling only about its benefits and persuade farmers to join the project. They should openly address the difficulties farmers are likely to face during the conversion process, and provide a realistic picture on the limitations of the project. It is particularly important to create an atmosphere in which problems and shortcomings are openly addressed by all stakeholders, so that the team and the management can work on improvements. This requires a high degree of trust between the farmers and the extension team, as well as between the extension team and the project management.

#### 6.2 Building up an extension team

Before hiring staff for an extension team, projects should be clear about the different functions the team shall fulfil (see previous chapter). It is unlikely that one person can be ideal for all the different tasks. Therefore, it makes sense to build up a mixed team of people with different backgrounds and skills. Relevant qualifications and backgrounds could be:

- Language skills (local language, English etc.)
- Background in agriculture (academic or practical)
- Background in rural development (e.g. work experience with development NGOs)
- Communication and writing skills (for trainings, group facilitation, reports)
- Computer skills (documentation, data processing, development of extension material)
- Driving licence (for transportation to the field by motorbike or jeep)

<sup>&</sup>lt;sup>20</sup> see the IFOAM Training Manual on Organic Agriculture in the Tropics, free download available from www.fibl.org

It might also be helpful to target a suitable mix of male and female staff, and of local people (who are familiar with the area and its traditions) and people from outside (who can bring in new perspectives and ideas). The number of staff required largely depends on the actual project size, the range of support services provided by the extension team, and by the degree of farmer involvement. The more farmer-based the project is, the more activities can be handled by the farmer groups themselves, and the less extension staff is likely to be needed.

Initially, the extension team needs to become familiar with the project objectives and processes, and needs to develop technical competence. The available literature and information from the internet can help in this (see Annex 1.2).

An initial training programme for new extension staff, possibly implemented in collaboration with an organic cotton expert or a person from another organic cotton project, could cover the following fields:

- Training on central topics of organic farming (concept, standards, certification issues, farming methods; for details see the Organic Cotton Training Manual<sup>21</sup>), 3-5 days;
- Training on extension methodology and communication skills, with practical exercise (2-3 days training);
- Training on post-harvest processing (storage, joint marketing, ginning, financial administration), depending on the level of involvement in the supply chain
- Workshops on specific topics (1 day trainings), e.g. pest management in cotton, organic cultivation of rotation crops, soil basics, participatory technology development etc. (possibly involving suitable external resource persons);
- Studying of a selection of books related to cotton and extension ('to-read list');
- Excursions to other organic cotton projects.

After the initial training phase is completed, it is important that the team members refresh and update their know-how from time to time (see Chapter 10.2).

#### 6.3 Training and advice

As introduced in Chapter 6.1, an important role of the extension team is to support the farmers by providing training and advice. The aim of this support is to enable the farmers to successfully convert to and practice organic farming in cotton and in the rotation crops. However, organic farming is far more than applying a package of prescribed farming methods. Being built on a system approach, it requires that the farmers are enabled to design and build farming systems in which the single elements interact in a mutually enhancing and beneficial way (see Chapter 7.1). The introduction of specific methods of organic plant nutrition and pest management is a necessary element in the extension work, but it should go beyond this. Rather than prescribing a package of practices, the extension team should help farmers understand the interaction between the different elements of the farming system. Doing so will enable farmers to decide which set of measures is appropriate for the specific farm setting.

Most probably the farmers are technically more familiar with cotton farming practices than the extension staff, and after some time they will also be more experienced in the practical implication of organic farming methods. The role of the extension staff should therefore change to being facilitators or coaches who support the farmers in developing suitable solutions to problems and in sharing their experience and expertise with their co-farmers. The focus thus might shift to creating platforms for and moderating processes of farmer-to-farmer exchange.



<sup>&</sup>lt;sup>21</sup> available at www.organiccotton.fibl.org

Ways for doing this could be:

- Invite experienced farmers (possibly also from other projects) as resource persons in trainings;
- Conduct farmer meetings where experience is shared and challenges are identified;
- Document innovative practices of farmers and make them accessible to others;
- Organize field visits of farmer groups to learn from each others experience and discuss possible solutions to problems;
- Facilitate Farmer Field Schools<sup>22</sup> on organic farming;
- Organize farmer excursions to other projects;
- Facilitate farmer groups in Participatory Technology Development (see Chapter 10.1), conducting simple field trials.

Extension staff should have a basic understanding on how adults learn most efficiently, and on methods of how to actively involve farmers in extension work. It is a good idea to consult literature on rural extension methodology in general, and on training in organic agriculture in particular (for references see Chapter 1.2). Based on this, the team can develop training curricula and extension tools. The extension tools developed within the Organic Cotton Research Project<sup>23</sup> can be used as a base to start from. As each project operates in different frame conditions and has its unique set-up and features, it will be necessary to adapt the material to the specific conditions, and to complement them with examples and illustrations relevant to the project.

#### Building up extension services: Key questions

- What shall be the different functions and roles of the extension team?
- How will the extension team be organized and managed?
- What is the project's approach to extension?
- How will farmers be involved in defining the contents of the extension work?
- What qualifications are needed in the extension team? How will the project identify suitable staff?
- How will the extension team build up technical and process competence? How will they get practical experience and exposure?
- What platforms will be created to enable farmer-to-farmer exchange?
- What training material and other extension tools will be developed?

# 7 Organic cotton farming

#### 7.1 Designing cropping systems

Even if the project's focus is on cotton, the full farm needs to be taken into consideration. This includes the crops grown in rotation with cotton (whether for subsistence or for selling), and to a certain extent animal husbandry, too. Though some organic standards allow part farm conversion (i.e. a clearly separated unit of the farm remains under conventional management), this is usually not a feasible option in smallholder projects. Therefore, the entire farm needs to comply with organic standards in all aspects.

<sup>22</sup> see www.farmerfieldschool.net

<sup>&</sup>lt;sup>23</sup> see www.organiccotton.fibl.org

Detailed information on cotton based organic farming and on the involved methods and technologies are given in the Organic Cotton Crop Guide<sup>24</sup>. In combination with guidelines for the major rotation crops cultivated in the project, this can serve as a profound technical basis for the design of the cropping system. It is important to keep in mind that there is no fixed package of practices in organic farming. What is an appropriate set-up in one farm might not make sense in another farm. While in certain conditions a low-input strategy achieves the best results, in other conditions it can make sense to practice intensive organic farming with considerable efforts in crop management. It is important for effective extension work to understand and recognize the diversity among the involved farms, and to respond to the different farm types with suitable approaches.

To be economically viable in the long term an organic farm needs to manage its resources so that revenues exceed variable and fixed production costs. To a certain extent, extension workers should thus understand and train farmers as entrepreneurs who try to optimize their businesses.

#### 7.2 Managing the conversion process

The main hurdle to organic farming is to manage the conversion process. During the first two to four years, most farmers who shift from conventional to organic management are facing challenges on various levels: provision of organic inputs, decrease in yields (as soil fertility needs time to recover), additional work load (to re-shape the farming system and to build up competence), and responding to certification requirements. It is during this period that farmers will require the support services provided by the project the most.

Organic cotton projects should think about whether they want to create opportunities for farmers to gradually convert to organic farming so that they can reduce the risk involved in conversion. For example, new farmers could be encouraged to try out organic methods on part of their land before officially subscribing to the project standards. Although this will prolong the period until the farm can be certified organic, it might be more feasible and sustainable than converting in one single step. During the conversion period, technical advice should support farmers to minimize drop of yields. As increased initial application of organic manures is a crucial aspect in this, projects might support farmers in producing or purchasing organic manures or compost. The Organic Cotton Crop Guide provides some suggestions on how to successfully manage the conversion period (see Chapter 9.5).

Though organic cotton farming is likely to be more profitable in the long term (see Chapter 1.2), farmers will probably need to invest money (for inputs, infrastructure and loss of revenues) as well as additional labour during the conversion phase. Unfortunately, the products usually only fetch price premiums once the farm has passed the conversion period and is certified organic. Some projects manage to pay farmers an organic price premium already in the first two years of conversion, when the money is needed most urgently (see Chapter 9.1).

#### 7.3 Monitoring the performance of the farms

To be economically viable, organic cotton farming systems should in the long term achieve at least the same or rather higher profits than conventional farming. However, not too many smallholder farms really know their production costs, revenues and gross margins. Introducing simple record keeping can help farmers as well as project organizers to monitor the economic performance of converting farms. Furthermore, farm records allow farmers to identify ways of reducing production costs, improving yields and altogether optimizing the farming system. Experience shows that introducing record keeping alone already has a beneficial impact on the performance of farms – simply because it makes farmers more aware on what they are actually doing. If the project collects and processes the farm data centrally, this provides it with accurate and up-to-date production details on cotton as well as the rotation crops.



<sup>&</sup>lt;sup>24</sup> available at www.organiccotton.fibl.org

A simple format for keeping farm records is part of the extension tool kit developed within this research project<sup>25</sup>. Projects can adapt it to the specific local conditions (farming systems, language etc.) and to their requirement for farm data. Initially it might be necessary that extension staff support the farmers in filling in the forms, but after some time most farmers should be able to handle it on their own. The kit also includes an Excel file in which projects can enter and process the information of the individual farms. Don't forget to feed back the overall results to the farmers!

#### Designing and developing the farming system: Key questions

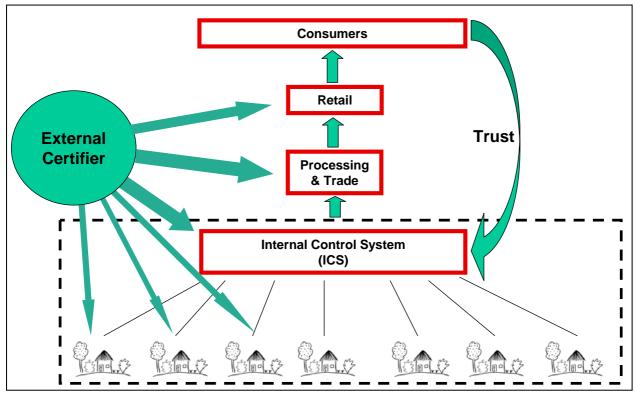
- What do the farms in the project need to change so that the entire farm meets the requirements of organic standards?
- What are the different types of farms in the project, and how will the extension take this diversity into consideration?
- Will the project provide opportunities to try out organic farming methods and to gradually convert to organic farming?
- How will the project support farmers to successfully manage the conversion process?
- Will the project introduce record keeping on the farm level? How?
- How will the project get up-to-date data on the production of the farms?

#### **8 Organic certification**

#### 8.1 Certification based on an internal control system (ICS)

If projects want to be able to sell their produce labelled 'organic', they need to be certified by an agency recognized (accredited) in the targeted countries. However, physical inspection of each smallholder farm by an external agency - whether by a local or a foreign certifier - would involve considerable costs. To reduce these costs and thus to facilitate certification of smallholders, most certification schemes have provisions for group certification based on internal control systems (ICS). In an ICS, a central body (e.g. the cooperative or the processor) verifies and ensures that all individual farmers comply with the respective standards. Each farmer needs to sign a contract with the organization in which they declare their commitment to following the specific organic standards of the project. The ICS operator maintains files of all producers and inspects each member at least once a year. Risks which might jeopardize the organic product quality at the different levels of farm production, transport, storing, and processing must be known and taken into account in all internal control procedures. Internal inspectors inspect the farms at least once a year, but usually several times a year. An internal approval committee or an approval officer deals with non-compliances according to set procedures and sanctions, and decides whether a farm can be certified organic. In this setting, the external certifier inspects the functioning of the ICS based on its documentation and physical re-inspection of a certain percentage of the farms. Overall, the ICS and the external certification need to cover all trade and processing steps implemented by the project (Figure 3).

<sup>&</sup>lt;sup>25</sup> The formats can be downloaded from www.organiccotton.fibl.org.



**Figure 3:** The structure of an internal control system and its relation to the external certifier (adopted from IFOAM).

For a detailed description of group certification and guidelines to develop an internal control system, please refer to the CD 'Smallholder Group Certification'<sup>26</sup>. IFOAM also provides a training curriculum with transparencies to train project staff on ICS. Therefore, in the following chapters we only discuss aspects that we think deserve further attention.

#### 8.2 Inspection or advice - defining the roles

It is a controversial issue whether extension staff who advice farmers shall also conduct internal inspections, or whether advice and control should be completely separate. Advisors who visit the farms several times a year are likely to build up close relations with the farmers and thus could develop a certain bias in favour of the farmer. As internal inspectors, however, they need to be able to conduct thorough and neutral checks of all farm activities. Many projects solve this dilemma by utilizing extension staff as inspectors in other regions than the one they cover as advisors. Some projects even involve selected and trained farmers in the internal inspection process. We recommend conducting at least part of the internal inspections (one yearly inspection or a percentage of randomly selected farms) by a thoroughly trained central level staff.

Nevertheless, advisors and internal inspectors should work closely together. If an advisor observes non-compliance with standards on a farm, he or she needs to report it to the ICS manager. As advisors are the ones who most closely interact with the farmers, they are familiar with the critical points in each farm. Thus, advisors should support the ICS staff to identify critical control points for effective inspections. At the same time, the ICS should involve the advisors in reducing the risk of non-compliance by providing suitable advice to the farmers on how to solve the basic problems.

<sup>&</sup>lt;sup>26</sup> see http://shop.ifoam.org/bookstore/

In any case the project needs to ensure that ICS staff is not involved in inspections of farms run by friends, relatives or neighbours, as this would create a conflict of interest jeopardizing the neutrality of their work. Furthermore, internal inspectors should not have a direct business interest in the outcome of the inspection, e.g. because salaries are defined as a percentage of the certified produce.

#### 8.3 Selecting the external certification agency

The value of the organic certificate depends to a large extent on the status of the external certification agency. As a formal requirement for importing products as organic into another country, the certifier needs to be accredited by the authorities of that country or trade union. Most of the bigger certification agencies hold accreditations for the European market (EN 45011 respectively ISO 65) and for the USA (NOP), and have either own accreditations or recertification arrangements with other certifiers for the Japanese market. Some buyers have preferences for specific certification agencies, or require additional certifications such as Fair Trade, HACCP (Hazard Analysis & Critical Control Points), GAP (Good Agricultural Practice) or SA 8000 (Social Accountability). Which kind of certification a project needs thus depends on the export destination as well as on individual requirements of the buyers.

When selecting the certification agency, projects might consider the following points:

- Accreditation for the target markets, or re-certification arrangements with other certifiers.
- Reputation as a reliable and credible agency.
- Familiarity of the certifier with the crops and the region (language!).
- Accessibility: Does the certifier have a local office nearby?
- Does the certifier also offer other certifications that may be needed in future?
- Rates for inspection, certification and transaction certificates. (Get offers from different certifiers.)

It is a good idea to select the certification agency early, as this allows cross-checking whether the planned ICS set-up meets their requirements for group certification. Besides the wellestablished international certifiers a number of new national or regional agencies have come up in some countries<sup>27</sup>. Selecting a local certifier can help to keep certification costs low, and ensures that inspectors are familiar with local conditions and are able to communicate with the farmers in their own language.

#### 8.4 Dealing with non-compliance

Thorough selection and training of the farmers and a well functioning internal control system are crucial to ensure farmers' compliance with organic standards. However, even with the most sophisticated inspection system it is impossible to have 100% control. At least equally important is that there is a trust relationship between the farmers and the project. Farmers should understand that if one of them violates the standards, the certification of the entire project could be at stake. If farmers have a strong feeling of emotional ownership for the project (see Chapter 4.1), mutual social control among the farmers will become the most effective key for guaranteeing the organic integrity of the project.

Still, in every project there will be some farmers who - purposely or by mistake – violate organic standards. If these violations are not detected and sanctioned by the internal control system, but only come out during the external inspection or when checking for residues on the final product, the project risks losing its organic certification. To reduce this risk, projects might consider creating incentives that farmers themselves admit the application of prohibited inputs, for example by giving them the chance to re-join the project after passing again through the

<sup>&</sup>lt;sup>27</sup> A directory of all organic certification agencies worldwide is available from The Organic Standard, www.organicstandard.com

conversion period. In case a farmer is found to have violated the standards, the project needs to have clear rules that do not provide space for opportunistic behaviour (e.g. to switch back and forth between organic and conventional farming). In order to increase the spirit of project ownership, it can be a good idea to involve farmer representatives in the decision making on sanctions.

#### Building up an internal control system (ICS): Key questions

- What structure will the ICS of the project have? How will it be managed?
- Who will develop the documents for the ICS? How?
- How will the project involve the farmers in the ICS?
- Who will internally decide about approval of farms and about sanctions?
- How will inspections be organized (by whom, how often, separation from advice)?
- How will the project ensure that internal inspections are effective and reliable?
- What are the certification requirements of the target markets / clients?
- What are the project's criteria for selecting the external certification agency?
- What measures will the project implement to avoid defaulting among farmers?

# 9 Buying and selling

#### 9.1 Pricing, premiums and payments

In most organic cotton projects there are buying officers (also called cotton selectors) in charge of purchasing the seed cotton from the farmers. The buying officer ensures that only certified cotton is purchased, and that in-conversion cotton is kept separate from fully organic cotton, if the project handles both qualities at a time. To make sure that farmers do not sell cotton from conventional sources as organic, yield estimates are made for each farm earlier in the season. These yield estimates are based on the condition of the standing crop and the actual area cultivated with cotton. Mistakes on the buying level can have serious impact on the organic project, as entire lots may get de-certified because they contain the produce of one single non-organic farmer.

Usually it is also the task of the buying officer to determine the quality of the cotton delivered by the farmer. If the project wants to ensure high quality of the produce, it needs to define clear criteria for the rejection or separation of cotton of inferior quality. To improve product quality, the extension work should work towards general improvements in harvest and post-harvest handling, especially on the control of foreign fibre contamination. Where cotton prices depend on the quality of the produce, the buying officer assesses the relevant quality parameters such as the degree of contamination (with dust, leaves etc.), dampness, staple length etc. and thus rates each cotton lot delivered by the farmer.

Organic cotton projects usually pay farmers an organic price premium fixed as percentage on actual market rates or on a previously agreed price (usually 10 to 30%). If the price premium is based on market rates, the premium amount will fluctuate along with these. To reduce the effect of changing market rates on the economic performance of organic farms, projects might consider fixing the price premiums in absolute terms (e.g. 0.05 \$ per kg). Some projects also pay a certain price premium during the conversion period, even if they are not able to sell inconversion cotton at a higher price. This supports farmers in bearing yield losses and additional expenses during the conversion period. In some cases the premium can be recovered from the buyer by focussing on general improvements in harvest and post-harvest hygiene (control of foreign fibre contamination), or even by simply increasing the efficiency in the supply chain and facilitating direct sales to conventional cotton trading companies. Often there is a gap between farm-gate and market rate prices.

As many smallholder farms live on very tight budgets, the timing of payments can be of crucial importance. Projects should ensure that farmers receive their payment without delay, if possible immediately when selling the cotton. Out of acute need for cash, some farmers might consider selling small quantities of cotton in the open market. To avoid this, projects should look for ways to enable farmers to sell small quantities of cotton at any time against immediate payment. Some projects made good experience with paying the price premium to the farmers at the time when inputs for the next crop are required. This ensures that some money is kept back, thus reducing the farmers' dependency on loans.

In projects that follow Fair Trade certification standards<sup>28</sup>, cotton is purchased at a fixed minimum price that is assumed to cover production costs and allows sufficient profits to make a decent living. If actual market rates are above the minimum price, these rates apply. In addition to the minimum price, farmers receive a fixed organic premium per kg cotton. Further, the farmer group receives a fair trade premium to be used for the social development of the group. According to the standards, this fair trade premium also needs to be shared with farm workers. So far there is little experience in organising this premium sharing between farmers and labourers, and it could prove quite a difficult task when seasonal labour is coming from diffused sources. An important advantage of Fair Trade certification is that it does not require a conversion period as it is needed for organic certification. Thus, the farmers can benefit from the guaranteed minimum price and the Fair Trade premium already before they are certified fully organic.

#### 9.2 Processing and selling cotton

It depends on the project set-up (farmer based or processing/trade industry based) and on the arrangements with the buyers whether the project also looks after the first processing steps or directly sells the harvested seed cotton. Many projects cover a first cleaning, the ginning and the baling of the cotton lint. They either run their own ginnery, or contract commercial ginneries. In the latter case it is important to ensure that the organic cotton is separated from conventional cotton throughout the process. Before processing organic lots the equipment needs to be cleaned from conventional fibre. The organic seed cotton, lint and bales need to be clearly labelled in the storage and identified in the books. In any case, the ginnery will be inspected by the external certifier. Unless the project is organized by a spinning mill or textile brand, the next processing steps – spinning, fabric formation, dying, stitching and finishing – are usually looked after by the respective buyer of the cotton lint.

Some projects have exclusive arrangements with one buyer who supported them in building up the project and who possibly bears the costs of the extension team and the certification. If this is not the case, the project can offer its produce to different buyers and sell to those offering the best conditions. To be able to do so, the project (in this case usually a farmer cooperative or association) needs to own the organic certificate. Under group certification schemes, individual farmers can not sell their cotton as 'organic' independently, unless they get their own certification.

Both settings – exclusive and non-exclusive selling – obviously have their advantages and disadvantages. While the possibility to sell to different buyers gives a project a stronger position as a trade partner and increases its independence, there is the risk that they are dropped by their buyers for price, quality or other reasons. Strong ties with one buyer can lead to dependency and loss of emotional project ownership. On the other side it allows reliable partnerships to grow, and allows building connections from the farmer to the final consumer. Some projects manage to find an intermediary way that combines the advantages of both: independent and strong farmer based projects entering into loyal partnerships with selected buyers.

As mentioned in Chapter 2.1, there are directories on organic cotton processing and trade companies that can help projects to find buyers for the organic cotton lint.

<sup>&</sup>lt;sup>28</sup> see www.fairtrade.net

#### 9.3 Marketing of rotation crops

In Chapter 2.2 we pointed out to the importance of checking organic marketing options for crops grown in rotation with cotton, so that the cropping system might be adjusted accordingly from the beginning. How to find markets for these crops once the certified organic produce is available?

Marketing options may exist on the export level, but also on the national and local level. One might be tempted to first think of the export option as prices look promising, and it seems difficult to achieve a price premium in domestic markets. However, competition on the international organic market is strong for most products, and quality requirements and bureaucratic hurdles are usually higher than for the domestic market. There are agencies that support producers in developing countries and countries in transition to export their organic produce to the respective country<sup>29</sup>. Some organisations provide addresses of traders, and business platforms where offers and demands can be placed.

In some cotton producing countries like India, China and Brazil, domestic markets for organic products are emerging and may offer even more promising opportunities for smallholder projects than the export option. In India, a number of processors and traders deal with organic products for the domestic market. The International Competence Centre for Organic Agriculture (ICCOA) in Bangalore has developed a business directory for organic products in India<sup>30</sup>.

In some regions and for some products, local markets also have a potential that is worth exploring. An organic cotton project in central India has successfully launched organic wheat in a local farm fair, and sells a range of organic products from its farmers at a small price premium in local shops. Their consumers appreciate the organic products as they consider them to be tastier, have better keeping quality, and are safe. A project in Kyrgyzstan has initiated women groups who look after simple processing and local marketing of rotation crops. There are a number of good examples for organic marketing initiatives in other countries, too<sup>31</sup>. It might also be worth exploring options to associate with other initiatives for market development in the country, possibly even creating a national organic label.

To be successful in gaining and maintaining trade relationships, two aspects appear to be of specific importance:

- 1. Thorough quality management and logistics that ensure the client to get high quality products in a reliable manner;
- 2. Professional marketing that allows building up credibility and a name in the market.

Projects are well advised to ensure that they avail of the necessary technical and professional know-how for these two aspects, either by hiring skilled staff or by getting competent advice.

#### Marketing organic products: Key questions

- How will the buying and the pricing be organized?
- How are organic premiums fixed, and when will they be paid to the farmers?
- Who will look after the ginning and baling of the cotton?
- Will the project try to get different cotton buyers? How?
- How will the project use the potentials of export, national and local markets to sell organic rotation crops?
- What quality management systems will be implemented?
- How will the project ensure that it avails of sufficient marketing know-how?

<sup>&</sup>lt;sup>29</sup> e.g. CBI in the Netherlands, SIPPO in Switzerland; for details see Annex 1.2

<sup>&</sup>lt;sup>30</sup> see www.iccoa.org  $\rightarrow$  Business directory

<sup>&</sup>lt;sup>31</sup> see books on marketing initiatives in Annex 1.2

# 10 Continuous improvement

# 10.1 Innovating and learning

Once the project is set up and is operational, the development work is not vet over. Continuous efforts will be needed to develop and strengthen the organisation on all levels and to keep it alive. There is always scope for improving the farming system, and for sure new challenges will be showing up. Projects should be able to take note of problems and shortcomings at the farm level, and should support the farmers in developing suitable solutions. One way of doing this is through participatory technology development processes<sup>32</sup>. In this approach, extension staff support farmer groups in identifying problems on the field level and prioritizing them. Together with the farmers possible methods on how to overcome these problems are collected. In this process, extension staff can also contribute ideas that they gathered from other projects, from books or from the internet. The farmers decide which of the proposed innovations they want to try out in simple field trials on some of the farms. Each of these trials compares one innovation with a control plot of the normal practice. Once the trials are set up, the extension staff can organize field visits of the group members to the farmers hosting the field trials. After the harvest, the extension staff compile the results from the field trials (yields, damage through pests etc.) and share them with the farmer group. This process not only has the potential to develop innovations that really work in local conditions. Furthermore, farmers are viewed as innovative actors who work for their own development, rather than as project beneficiaries. The process can help to strengthen their self-esteem and increase collaboration among the farmers. If the project has an own demonstration farm, it can use it for conducting more systematic trials to screen possible innovations for their effectiveness. Those with promising results can be suggested to the farmers to be tried in an on-farm field trial.

To be able to serve the project in the best possible way, the extension team should regularly update and complete its know-how and skills. The following ideas may be useful to make this happen:

- Regular exchange visits between the extension staff to discuss present problems observed in the field, how they dealt with them, and what are the lessons learnt;
- Circulating new books or other documents that are useful for the extension work among the team;
- Appointing a person who is in charge of documenting, updating and sharing know-how and information of the team (a knowledge manager);
- Searching the internet in regular intervals for new information relevant for the extension;
- Organizing workshops on relevant topics and inviting resource persons from outside;
- Organizing excursions for the staff to other projects or to research institutes, NGOs etc.;
- Sending staff to attend training programmes, seminars and conferences.

#### 10.2 Managing growth

In order to ensure that the project is able to develop and grow, it is a good idea to conduct yearly reviews of the different project elements (extension team, internal control system, administration and management, cotton purchasing, ginnery etc.). One way to get started is to conduct a simple SWOT-Analysis<sup>33</sup> of the respective activity together with the concerned people. In this exercise, the group brainstorms on and discusses the strengths, weaknesses, opportunities and threats that they relate with the activity, and notes down the findings as key words in a grid (Figure 4). In a next step, the group discusses possible ways and measures to build on the strengths, overcome the weaknesses, make use of the opportunities and reduce the threats.

<sup>&</sup>lt;sup>32</sup> for details on the approach see sources in Annex 1.2

<sup>&</sup>lt;sup>33</sup> SWOT stands for Strengths, Weaknesses, Opportunities, Threats

<u>Weaknesses</u>
<u>Threats</u>

Figure 4: Grid for a SWOT-Analysis

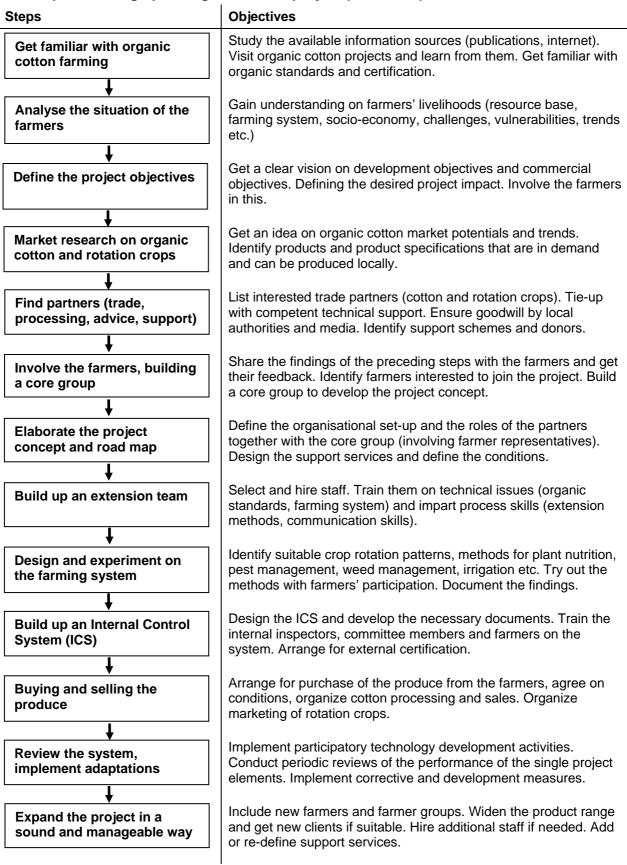
Once the project has been successfully set up and managed to prove its benefit for the involved farmers, it may happen that soon considerable numbers of farmers show interest in joining the project and in converting to organic farming. While this is definitely a positive sign, the project should care to grow in a way that the team is still able to handle the present as well as the new farmers. This not only includes providing services to the farmers and managing the internal control system, but also ensuring financial liquidity and greater marketing opportunities. Projects that strongly involve farmers in the main activities may find it easier to expand without hiring and training large number of additional extension staff.

# Improving the system: Key questions

- How will the project support the farmers in identifying solutions for problems they face in the field?
- How will the extension staff update their know-how and skills? What follow-up training will they get?
- How will the functioning of different project elements be reviewed? By whom?
- What is the expected size of the project after 2 years / 5 years / 10 years? How many staff will then be needed for the extension and internal control system?
- How can the project increase over time the degree of self-management of the farmer groups, so that less extension support is needed per farmer?

#### Annex

#### 1.1 Steps in setting up an organic cotton project (flow chart)



# 1.2 Useful documents / web sites

#### Organic cotton in general

- Organic cotton documents by FiBL (www.organiccotton.fibl.org)
  - o Organic Cotton Crop Guide
  - o Organic Cotton Training Manual
  - Producing Organic Cotton: A Toolkit (CD)
- Naturland (2004, 2nd edition): Organic Farming in the Tropics and Subtropics. Cotton. www.naturland.de
- Myers & Stolton (1998): Organic Cotton. From Field to Final Product. Intermediate Technology Publications. London.
- ATTRA: Organic Cotton Production. www.attra.ncat.org
- Organic Cotton Europe: www.organiccottoneurope.net
- Helvetas: Organic cotton. www.organiccotton.ch
- International Competence Centre for Organic Agriculture. www.iccoa.org

#### Organic markets

- P. Ton. (2002): The International Market for Organic Cotton and Ecotextiles. Pesticide Action Network United Kingdom. www.pan-uk.org/Cotton
- Publications by FiBL on organic marketing initiatives and marketing organic products from the tropics. www.fibl.org/english/shop → Category: Economics, Markets, Statistics
- Helvetas: Clients first A rapid market appraisal tool kit. www.helvetas.ch
- IFOAM: Developing local marketing initiatives for organic production (CD). http://shop.ifoam.org/bookstore/ → Publication list
- Business directory of ICCOA. www.iccoa.org/BusinessDirectory.asp
- Organic Trade Organisation (OTA). www.ota.com (search site for cotton).
- Centre for the Promotion of Imports from developing countries (CBI), The Netherlands; www.cbi.nl. Offering marketing guidelines, a market information database, training programmes etc.
- Swiss Import Promotion Programme Organisation (SIPPO), Switzerland; www.sippo.org. Offering country and sector specific directories, publications, trade fair participation etc.

#### Partners for organic cotton

- Organic Exchange, a platform of the organic cotton industry, providing market links and information, with a detailed world overview on organic cotton production. www.organicexchange.org
- The International Organic Cotton Directory: www.organiccottondirectory.net
- The Pesticide Action Network (PAN). The Cotton Project: Moral Fibre. www.pan-uk.org/Cotton
- Intercot, the International Conference on Organic Textiles. www.intercot.org
- Japanese Organic Cotton Association: www.joca.gr.jp/english
- The Solidaridad-ETC Organic Cotton Programme India; with information and links on organic cotton. www.indianorganicproducers.org
- International Competence Centre for Organic Agriculture, India (ICCOA) provides services for organic cotton production and for marketing of organic products in India. www.iccoa.org
- Fair Trade: The International Fair Trade Association (www.ifat.org) and Fairtrade Labelling Organizations International (www.fairtrade.net)



#### Farmer participation and agricultural extension

- Sustainable livelihood framework developed by DFID. www.livelihoods.org
- Baumgartner, R. and R. Högger 2004: In search of sustainable livelihood systems: managing resources and change. Sage publications, New Delhi. ISBN: 81-7829-285-8
- Guides on extension and participatory methods developed by the Swiss Centre for Agricultural Extension (LBL). www.lbl.ch/internat/services/publ
  - Agricultural Extension Guidelines for extension workers in rural areas
  - Extension Tray a collection of practical extension approaches
  - The extension butterfly
  - Innovative approaches to financing extension for agriculture and natural resource management
  - Modules for Discussing Participatory Development of Agricultural Innovations on Farmers Fields
  - Finding new things and ways that work A Manual for Introducing Participatory Innovation Development (PID).
- Participatory technology development:
  - van Veldhuizen, L., A. Waters-Bayer and H. de Zeeuw. 1997. Developing Technology with Farmers: A Trainer's Guide for Participatory Learning. ZED Books, London, UK.
  - Gonsalves et al. 2005. Participatory Research and Development for sustainable agriculture and natural resource management: A Sourcebook. ISBN 1-55250-181-7. see www.idrc.ca
- IFOAM Training Manual for Organic Agriculture in the Tropics. http://shop.ifoam.org/bookstore/ → Publication list. Free downloads are also available from www.fibl.org.

#### Certification

- The Organic Certification Directory, www.organicstandard.com
- EU regulation: http://europa.eu.int/eurlex/en/consleg/main/1991/en\_1991R2092\_index.html
- US National Organic Program: www.ams.usda.gov/nop/NOP/standards/FullRegTextOnly.html
- Japanese Agriculture Standard: www.maff.go.jp/soshiki/syokuhin/hinshitu/organic/eng\_yuki\_175.pdf
- IFOAM: Smallholder Group Certification (CD). http://shop.ifoam.org/bookstore/ → Publication list
- Fair Trade standards: www.fairtrade.net/sites/standards/standards.html

The Organic Cotton Project Guide supports organizers of organic cotton projects in designing and setting up organic cotton production with smallholders, and in re-thinking existing projects. Recognizing that there are many possible ways and approaches in doing this, the guide wants to stimulate reflection and provide ideas rather than giving final answers and prescriptions. The guide relates to the Organic Cotton Crop Guide (also by FiBL) that covers the production aspects of organic cotton farming.

To a large extent, the guide draws on 3 years of research on organic cotton farming conducted in the Maikaal bioRe project in central India. It further integrates lessons learnt in other organic cotton projects in India, Mali, Tanzania, Benin and Kyrgyzstan. Information compiled from literature and the Internet supplements these sources.



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