



Federal Ministry
for Economic Cooperation
and Development



Contract farming handbook

A practical guide for linking small-scale producers and
buyers through business model innovation

Volume II – Selected tools and case examples

Published by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Contract farming handbook

A practical guide for linking small-scale producers and
buyers through business model innovation

Volume II – Selected tools and case examples

Margret Will

With contributions of

Ellen Funch · Moritz Heldmann · Yotsawin Kukeawkasem

Stephen Mailu · Christopher Masara · Andrew Mbetsa

Liberty Murwira · Christoph Pannhausen · Matthias Schnier

Abbreviations	6
1/ Introduction to the Contract Farming Handbook Volume II	10
1.1/ Recap Volume I: contract farming as a business model	10
1.2/ Purpose Volume II: help practitioners to find situation-specific solutions	10
1.3/ Intention: complementing not duplicating other guides and toolkits	11
1.4/ Invitation: call on users to give feedback, to add tools and case studies	11
1.5/ Explanation: how to use the CF Handbook Volume II	11
2/ Selected tools for contract farming (CF) development	12
2.1/ Tools for contract farming analysis	12
2.1.1/ Rapid contract farming scheme assessment	13
2.1.2/ Value chain analysis/ mapping	28
2.1.3/ Risk assessment	30
2.1.4/ Farm and firm business model analysis	40
2.1.5/ Farmer, lead farmer, farmer organisation and firm selection	46
2.1.6/ Capacity development and service needs assessment	54
2.2/ Tools for contract farming planning	60
2.2.1/ Contract farming business model	61
2.2.2/ Contract farming business plan	64
2.2.3/ Gender aspects in contract farming	68
2.2.4/ Pricing mechanisms in contracts	77
2.2.5/ Contract negotiations	84
2.3/ Tools for contract farming management	86
2.3.1/ Field management (operational structure and staffing)	87
2.3.2/ Risk management	100
3/ Selected tools for 3rd party support to contract farming development	110
4/ Contract farming case writing	124
5/ Case studies and contract examples	130
5.1/ Case studies: CF Business Model Canvas	130
5.1.1/ Thailand/ Seed rice	130
5.1.2/ Thailand/ Palm oil	134
5.1.3/ Kenya/ Meat production	138
5.2/ References for case studies	143
5.3/ References for contract examples	150

AISP	Agricultural Input Supply Project
BDS	Business Development Services
CAADP	Comprehensive African Agriculture Development Programme
CD	Capacity Development
CF	Contract Farming
CoC	Code of Conduct
CoP	Code of Practice
FBO	Farmer-Based Organisation
FBS	Farmer Business School
GAP	Good Agricultural Practices
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
SWOT	Strengths, Weaknesses, Opportunities and Threats
VC	Value Chain

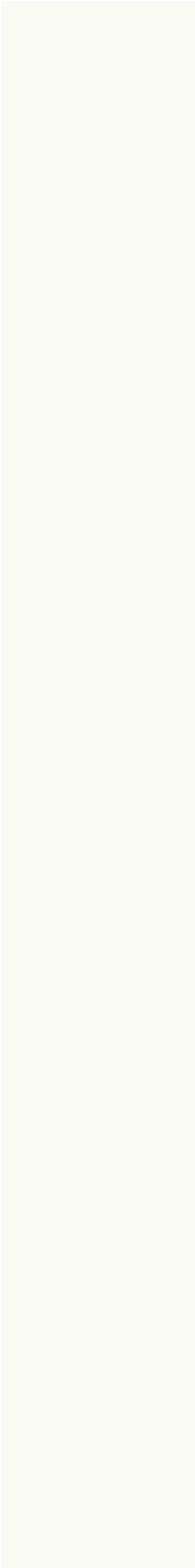
Symbols




Space for entries and notes



Important to note





“The challenge of providing millions of smallholder farmers with advisory services, high quality seed and other agricultural inputs, as well as organising their access to markets, is immense. One approach for tackling this challenge is the creation of a link between smallholder farmers and the market through contracts with agroindustrial buyers.”

Peltzer and Röttger, 2013¹

“The challenge is not only to define good examples of private sector engagement in inclusive investment, but to make sure that the investment is financially sustainable.”

Atul Mehta, IFC, 2012²

.....
1 Peltzer, Roger und Daniela Röttger (2013): Cotton Sector Organisation Models and their Impact on Farmer's Productivity and Income; Deutsches Institut für Entwicklungspolitik (DIE); Discussion Paper 4/2013; available online at: http://www.die-gdi.de/uploads/media/DP_4.2013.pdf

2 Mehta, Atul, IFC, cited in: Woodhill, J., Guijt, J., Wegner, L., Sopov, M. (2012): From islands of success to seas of change: a report on scaling inclusive agri-food markets; Centre for Development Innovation, Wageningen UR (University & Research Centre); available online at: <http://seasofchange.net/file/2012/10/SOC2012report.pdf>



1/ Introduction to the Contract Farming Handbook

Volume II

1.1/ Recap Volume I: contract farming as a business model

The selection of tools and case examples presented in the present Volume II of the Contract Farming Handbook is guided by the basic concept of GIZ that supports **contract farming as an inclusive business model** (cf. GIZ Contract Farming Handbook, Volume I, p.45).

A business model is characterised by the logic and the arrangements of how a company (farm or firm) creates, delivers and captures value.

Contract farming (CF) is a joint undertaking linking the buyer's business model with the producers' business model (farming system) at the farm supply-firm procurement interface.

This close business relationship is characterised by the interdependency between farmers and buyers as co-contractors and the risks involved if the design of the CF model is not appropriate for committing one or the other partner to fulfil their obligations.

Given that the contract farming business model forms integral part of the business strategies of firms and farms, the development of a contract farming (CF) scheme implies that both business partners have to innovate their business models/ farming systems. By doing so, the design of the conjoint business has to be guided by the following criteria for successful CF:

- creation of mutual benefits (incentives), e.g. through increased productivity, reduced post-harvest losses, reduced transaction costs and improved market access respectively;
- negotiation of fair and equitable contract terms relevant for successful contract fulfilment (e.g. prices, supply quotas, embedded services, rejection modalities, payment terms);
- design of an efficient CF management system enabling the buyer to establish close working relations with farmers (directly or indirectly through intermediaries);
- provision of room for 'learning by doing' to adapt the CF business model as need arises during the course of implementation.

1.2/ Purpose Volume II: help practitioners to find situation-specific solutions

Since there is no blueprint for success, the main intention of GIZ's Contract Farming Handbook³ is to encourage people not to rush into action but to take their time to first understand local realities and develop tailor-made business model solutions before starting a contract farming scheme.

To this end, Volume I of the Contract Farming Handbook⁴ highlights areas that need to be well-thought-out by farmers and buyers before venturing into contract farming (CF). While asking many questions, Volume I gives little answers since farmers and buyers have to discover their own solutions as they own the businesses and bear the investment risks. Experience shows that many practitioners know a lot of answers themselves; however, they often need help for discovering the real causes behind the more obvious symptoms. The questions assist practitioners in identifying the root causes that need to be addressed and finding their own solutions for developing viable and mutually beneficial contract farming schemes.

The purpose of Volume II of GIZ's Contract Farming Handbook is to provide practitioners (farmers and farmer groups' representatives, buyers and facilitators) with tools and case studies that assist in taking informed decisions on starting up, implementing and scaling up contract farming schemes. This also means to support decision-making on desisting from venturing into heavy investments if a planned scheme does not promise to break even within reasonable time.

.....

³ Volume I of GIZ's Contract Farming Handbook: A practical guide for linking small-scale producers and buyers through business model innovation (June 2013); available online at: <http://www.giz.de/Themen/en/dokumente/giz2013-en-handbook-contract-farming-manual-low-resolution.pdf>

⁴ The 1st edition of the Contract Farming Handbook (June 2013) does not indicate 'Volume I' in its title.

1.3/ Intention: complementing not duplicating other guides and toolkits

A rich literature on value chain development in general and contract farming in particular already provides comprehensive and instructive guides and toolkits⁵ most of which being available via internet. In order not to duplicate, the present selection either builds on these foundations with due reference to the original sources or provides tools and case examples that have been newly developed by the author and contributors to Volume II.

For further literature providing insights into relevant approaches, methodologies and instruments please refer also to Volume I, which includes bibliographical information at the end of every section and a comprehensive bibliography at the end of the document.

Financing solutions for CF schemes is not yet included as a tool in Volume II. It is however intended to address this important aspect and to make material available to CF practitioners in the near future.

1.4/ Invitation: call on users to give feedback, to add tools and case studies

Just like the first volume of the CF Handbook, Volume II does not claim to be all-encompassing. In fact, GIZ invites all users to complement the compilation by sending in further tools and case studies they consider worthwhile to be integrated into the selection of tools in the future; whether developed by yourself or discovered in other handbooks, guides or studies⁶.

Your feedback on lessons learnt in testing and your recommendations for improving the tools is very much appreciated.

1.5/ Explanation: how to use the CF Handbook Volume II

For informed decision-making on strategies and actions for developing viable CF schemes, it is recommended to use GIZ's Contract Farming Handbook Volume I and the present Volume II in tandem. The pragmatic tools provided in Volume II support practitioners to discover own and situation-specific solutions to the questions asked in Volume I. Furthermore, the tools described in the present Volume II are backed by the conceptual foundations given in section B.1/ and B.2/ of Volume I.

As a generic guide, the tools proposed here are applicable to all kinds of decision-making processes on CF. **However, the tools always have to be adapted to the specific needs of each case and modified according to the local conditions and the capacities of farmers and buyers** and in some cases of facilitators assisting in the development of CF schemes.

Given that planning, setting up and managing CF schemes is a very complex task, it is obvious that a wide range of business-related, organisational, technical, financial and also sociological knowledge areas are involved. Subject to the individual case, tools and expertise may be required for as varied themes as methods of on-farm research and seed selection, introduction of good agricultural practices and reduction of post-harvest losses, introduction of standards and facilitation of certification, solution of logistic problems and construction of warehouses, development of CF-oriented finance products and business advisory services; to mention just a few. It is obvious that the present compilation cannot cover all areas and eventualities. **This collection focuses on tools for business decision-making and tools related to CF management.** When it comes to more technical questions and requirements, to organisational development of farmer groups, to in-depth business-related issues users have to look out for relevant expertise and readily available literature and other sources of information.

- To facilitate users to fill in the templates, all documents are made available as single documents online at: <http://www.giz.de/fachexpertise/html/7982.html>

.....
⁵ Among others: Springer-Heinze (2008 and forthcoming); Action for Enterprise (2008); Eaton and Shepherd (2001); Technoserve and IFAD (2011); Wageningen UR et.al. (n.d.); and the FAO Contract Farming Resource Centre (for titles and links cf. Bibliography in Volume I)

⁶ Contacts: margret.will@gmx.net and food-security@giz.de

2.1/ Tools for contract farming analysis

To design viable contract farming arrangements it is necessary to know potential target markets and their access requirements as well as the competitiveness capacities or the possible inefficiencies of the value chain (VC), of which the CF scheme would form part. Solid farm, firm and CF business planning depend on a sufficiently profound but simple analysis of the VC including (cf. Volume I, p.52): current supply-demand situation and prospective future market trends; existing business and investment climate; cost-benefit of alternative business solutions (CF versus other supply-procurement concepts); strengths and weaknesses of actors involved; as well as opportunities and risks connected with the adoption of CF as a business model. Furthermore, it is necessary to assess the needs for up-grading the capacities of farmers and other actors involved as well as for setting up the necessary field infrastructure and management systems. Last but not least, prospective investment and operational costs as well as returns on investments and revenues have to be estimated to assess the likely viability and the break-even point of a planned scheme. The information generated forms the basis for CF business planning (cf. section 2.2.2).

Recommendations for CF analysis

(cf. CF Handbook Volume I, p. 53)

- Reduce the complexity of analysis to 'as much as necessary, as little as possible'.
- Consider that a viable return on investment for both co-contractors is key to success.
- Consider that the adoption of innovations requires commitment, resources and time.
- Plan a gradual CF growth to reduce risks and costs of necessary learning loops

The following tools for CF analysis are explained in this section:

- 2.1.1 Rapid contract farming scheme assessment
- 2.1.2 Value chain analysis/ mapping
- 2.1.3 Risk assessment
- 2.1.4 Farm and firm business model analysis
- 2.1.5 Farmer, lead farmer, farmer organisation and firm selection
- 2.1.6 Capacity development and service needs assessment

2.1.1/ Rapid contract farming scheme assessment

For purpose and selected questions cf. GIZ Contract Farming Handbook Volume I (drawing on the entire volume)

Purpose

By focusing on areas of major concern for the sustainability of CF schemes, the tool guides users through a rapid assessment of key features of CF arrangements. To prompt users to consider own experiences and ideas, the template provides selected good practices.

The tool serves the following ends:

- initial planning of a new CF scheme;
- assessment of the performance of existing CF schemes; and

- initial planning of the re-design of an existing CF scheme (re-engineering).

Output

The tool provides a rough outline of key features of a CF scheme. While assisting practitioners to gain a preliminary overview, the tool is not meant to guide a detailed planning of new CF schemes or a thorough analysis of issues of existing CF schemes (for tools for an in-depth analysis cf. sections 2.1.2 – 2.1.6).

Template Rapid contract farming (CF) scheme assessment


(adapted from SNV, n.d.; partly verbatim citation; and Action for Enterprise (AFE), 2014)

Selection processes

Selection principles

The selection of sites and farmers should be guided by the following guidance notes of the Committee on World Food Security (CFS; cf. references at the end of this section):

- “Principles for Responsible Investment in Agriculture and Food Systems” and
- “Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security”

—  Assessment of the CF scheme


Product selection

(cf. also Volume I, page 31ff)

Consider the following questions when selecting a crop (selected questions/ not complete):

- Does the crop promise profits for both buyer and farmers?

- Can the crop be successfully grown by smallholders?
- Has the product got primary and secondary markets (for surplus/ rejected produce)?
- Is the product readily side-marketed?

—  Assessment of the CF scheme

Site selection

(cf. also Volume I, page 62f)

Consider the following questions when selecting a site (selected questions/ not complete):

- Does the site facilitate transport/ logistics solutions re distance and costs?
- Is the site suitable re land availability, soil/ climate conditions, cropping history, etc.?
- Is access to key infrastructure/ utilities assured (water, electricity, roads, telephone, schools, health services, etc.)?
- Can support by local government, traditional leadership or other 3rd party be accessed?

—✍ Assessment of the CF scheme

Farmer selection

(cf. also Volume I, page 62f; Volume II, section 2.1.5)

Consider the following questions when selecting farmers (selected questions/ not complete):

- Are farmers already working in groups with proven track-record/ committed leadership?
- Do the farmers have a history of successful/ reliable supplies under contracts?
- Are farmers recommended by reliable local partners (e.g. extension, other companies)?
- ! Note:
Continued monitoring of supplier performance and exclusion of non-productive and unreliable suppliers are required.

—✍ Assessment of the CF scheme

Firm selection

if farmer groups/ associations/ cooperatives search for buyers (cf. also Volume II, section 2.1.5)

Consider the following questions when selecting firms (selected questions/ not complete):

- Has the firm got a history of successful/ reliable contracting?
- Is the firm recommended by reliable local partners (e.g. farmers, associations)?
- ! Note:
An impression of management and staff attitudes and of firm performance (e.g. visit of the company/ factory) are also important.

—✍ Assessment of the CF scheme


Contract specifications

Contract technicalities and negotiations

(cf. also Volume I, page 73ff, Box 17)

Consider the following questions (selected questions/ not complete):

- Do the contracts ensure accountability, ownership and reward by individual farmer?
- Is it possible to conclude group contracts to ensure group buy-in and peer pressure?
- But: is a dual contracting system (combined individual and group) advisable?
- Is the agreement written in straightforward and unambiguous language?
- Are the contracts drafted in vernacular to improve understanding and communication?
- Are the contracts concise and written in simple language without difficult legal terms?
- Is a grower guide/ are good agricultural practices attached, farmers have to comply with?
- Has the contract been explained to farmers/ has it been negotiated with the farmers (a top-down approach can breed resentment)?
- Has participation of men and women in negotiations been assured (women often do the field work)?
- Have individual farmers received a copy of the individual and/ or group contract?
- ! Note:
Verbal agreements are often sufficient but they can lead to problems when contracting parties cannot remember, or plead ignorance of details later on.

 Assessment of the CF scheme

Contract duration

(cf. also Volume I, page 73ff, Box 17)

Have advantages and inconveniences of different contract solutions been considered? Such as:

- annual contracts or
- longer term contracts with annual re-negotiation or
- longer term contracts with input delivery/ produce supply schedules.

 Assessment of the CF scheme

Production quota

(cf. also Volume I, page 73ff, Box 17)

Have the following questions been considered when calculating the production quota:

- History of yields (by individual farmer and area-based)?
- Productivity required to fulfil the contract/ to assure profitability for farmers (kg/ ha);
- Level of input support required?
- Quota to be delivered (kg or % of production).
- Procurement requirements of the buyer?
- Have opportunities been seized to improve relationships with farmers? Does the firm e.g.:
- Possibilities of scale economies?
- Purchase the contracted quota even when there is a market glut?

Does the contract clearly specify the following details?

- Area supported (ha);
- Assist farmers find alternative markets when exceeding the agreed quota?


 Assessment of the CF scheme

Grading requirements

(cf. also Volume I, page 73ff, Box 17)

Have the following questions been considered when specifying the grading requirements:

- Is the number of grades reduced to the necessary and are they clearly defined?
- Is a quality-based price differential in place (higher prices paid for better quality)?
- Are the grades described in an unambiguous way to avoid confusion/ conflict?
- Are farmers allowed to do 1st stage grading to facilitate alternative marketing of rejects?
- If not possible, are farmers/ farmers' representatives present during grading at factory to verify grades and weights (to foster transparency)?

 Assessment of the CF scheme

Pricing mechanisms

(cf. also Volume I, page 73ff, Box 17; Volume II, section 2.2.4)

Does the pricing mechanism:


- Reflect production costs and margins necessary for reinvestments and livelihood?
- Reflect prevailing market prices (depending on target market)?
- Take the need for company and farmer profit into account?
- Consider calculating prices in strong currencies (e.g. USD) in high inflation countries?
- Encourage farmers to comply with the contract (e.g. quality-based price differential)?

- Note: Price information or pre-planting prices should be given prior to the planting season to:

- Motivate farmers to sign a contract;
- Allow farmers to plan/ budget for the season.

! Note:

- Do not factor overhead costs into producer prices since non-transparent pricing and (perceived) low prices trigger side-marketing;
- Do not reduce producer prices or increase quality specifications in times of oversupply since this creates mistrust, which in turn triggers side-selling and hinders to retain farmers;
- Explain the pricing mechanism to farmers during negotiations and clearly spell out the pricing mechanism in the contract.

 Assessment of the CF scheme

Dispute settlement

(cf. also Volume I, page 73ff, Box 17)

In case of default of farmers or the buyer, mediation and traditional forms of dispute resolution or, if available and affordable, arbitration by neutral parties is vital, given the weak contract enforcement systems in many developing countries.


Have the following questions been considered when specifying dispute settlement solutions?

- Are sanctions in case of default clearly specified in the contract and communicated?
- Are ways of dispute settlement (judicial proceedings, arbitration) understood/ specified?

- Is the mediator/ arbitrator respected by both sides and is mediation/ arbitration accessible for small-holders?

! Note:

- Consider that amicable dispute resolution is usually preferable over legal proceedings;
- Involve a mutually respected person (e.g. traditional court or mutually respected opinion leaders, representatives of associations or other), representatives of the farmers and of the buyer into dispute settlement.

 Assessment of the CF scheme

Embedded services

Transport and logistical support

(cf. also Volume I, page 73ff, Box 17)

Do the transport and logistics infrastructure and management consider the following?

- Is the transport/ logistics system appropriate for in-time distribution of inputs/ collection of supplies?
- Does the logistics system consider the possibilities of farmers to reach the distribution/ collection point (e.g. walking distance)?

- Does the contract document clearly specify the responsibilities of the contract parties regarding transport/ logistics?

! Note:

Since investments into transport/ other logistics can be quite heavy, costs and benefits need to be weighed carefully and alternative solutions (hired transport) considered.

 Assessment of the CF scheme

Extension support


(cf. also Volume I, page 73ff, Box 17; Volume II, section 2.1.3 risk assessment and section 2.3.2 riskmanagement)

Close mentoring through training, extension and supervision of farmers needs to be assured throughout the production cycle (by own field staff or contracted intermediaries). Does the field management system support:

- Trust-building (key enabler for compliance)?
- Real-time communication?
- Adherence to good practices agreed?
- Compliance with strict standards?
- Delivery of agreed volumes in time?
- Risk management (early detection of emerging problems and fast problem-solving)?
- Reduction of side-selling?

Recommendation for the organisation of extension support:

- Use on-farm demonstrations to train farmers in good practices for transfer to own plots;
- Use on-farm demonstrations to compare different practices (e.g. planting dates);
- Consider the organisation of field days to sensitize farmers on new technologies;
- Organise farmer-to-farmer or group-to-group competitions to motivate farmers;
- Provide farmers with a grower guide (compliance to be agreed in the contract).

 Assessment of the CF scheme

Inputs/ pre-financing support

(cf. also Volume I, page 73ff, p.78 and Box 17)

Farmers usually have limited access to inputs as well as finance for inputs, equipment and other investments. Input/ finance support is usually necessary for achieving higher yields and improving quality.

Have the following possibilities been considered in the contract farming arrangement:

- Are incentives in place to reward performant farmers with higher levels of support?
- Are inputs procured in bulk to benefit from reduction of unit costs?
- Is the input distribution system appropriate to assure in-time distribution?
- Are farmers obliged to sign a statement of account for distributed inputs?
- To avoid re-direction of inputs supplied: is it feasible to distribute additional fertilizers to support farmers' staple crop production?

! Note:

Take care, not to over-indebt farmers by providing too much support! (see below: payment and repayment conditions)

! Note:

Companies providing intensive support should manage risks by:

- Involving high management levels to take the responsibility for investment decisions and appropriate risk management;
- Employing field staff for close mentoring and supervision of farmers ('directed farming'/ 'visibility of the company in the field').



Assessment of the CF scheme

Farmer group development


Farmer based organisations (FBO) such as farmer groups, associations or cooperatives allow small-scale farmers to benefit from joint learning and common commercial activities, economies of scale and hence the reduction of transaction costs of managing the supply side of a CF scheme. However, the degree of organisation of farmers is often low with many existing FBOs featuring weaknesses in leadership and membership services.

Are appropriate and sufficient measures planned/implemented for strengthening FBOs regarding:

- Decision-making competence, leadership capacities and control by members?
- Capacities for joint activities such as peer learning, shared tasks (e.g. record-keeping, technical advice, plant protection, internal group audits), joint solutions for high seasonal work load, combined distribution of inputs, joint collection, etc..

! Note:

FBOs should not be forced to do common marketing since joint commercial activities often fail when FBOs are weak and members mistrust each other.

 Assessment of the CF scheme

Payment and repayment conditions

Payment conditions

(cf. also Volume I, page 73ff, Box 17)

Have the following possibilities been considered in the contract:

- Possibility to realise payments in cash and as quickly after harvest/ collection/ grading as possible given farmers' liquidity needs?
- If cash is not possible: are there other ways for quick payment (e.g. mobile banking)?
- If farmers want easy access to consumables/ equipment (especially in an inflationary environment): is 'barter trade' possible?

 Assessment of the CF scheme

Repayment for inputs provided on credit/ other pre-financing support

(cf. also Volume I, page 73ff, Box 17)

Which repayment solutions can contribute to reducing conflict/ default?

- Calculate the weight of crops that is equivalent to the value of inputs provided to individual farmers;
- Notify farmers of the yield required to repay input loans so that farmers can plan/ budget accordingly;
- Use (and communicate) transparent calculation methods for deducting the repayment for loans from sales revenues;
- Issue contract agreements for the next season only after the farmer has completed his repayment obligations;
- Consider contract agreements on deferment of repayments in case of crop failure due to bad weather conditions or the like.

 Assessment of the CF scheme

External factors


3rd party (external) support

(cf. also Volume I, page 36ff)

Companies should seek assistance of qualified 3rd party public or private organisations/ service companies either as sub-contractors or as strategic partners.

Possible needs:

- Develop organisational capacities of FBOs (governance, accountability, joint action);
- Develop technical capacities (e.g. production, collection, 1st stage processing);
- Develop business development services (BDS) for farmers;
- Assist in input delivery or extension services (either technically or as financial support).

 Assessment of the CF scheme

Framework conditions

(cf. also Volume I, page 57f)

In many countries, the framework conditions/ investment climate are not favourable for companies contracting smallholders. Have solutions been developed for overcoming the following (quite frequent) obstacles:

- Dilapidated infrastructure (especially access roads)?
- Inefficiencies in key utilities (water, electricity, communication, etc.)?
- Monetary disincentives (e.g. multiple taxation, road blocks, bribery)?
- Erratic market interventions (e.g. government buying/ selling of strategic crops)?
- Market perturbing legislation (e.g. price controls, single channel marketing systems)?
- Inefficiencies in the legal system and enforcement system for dealing with defaulters (farmers or companies)?


 Assessment of the CF scheme

Final assessment and decision-making

Risks and reward of the CF scheme

Have the following questions been considered when deciding whether to establish a CF scheme or not e.g.:


- Cost-benefit of a CF scheme compared to alternative procurement options?
- Advantages of the CF regarding final market requirements compared to other solutions?
- Challenges and costs of developing a CF field management system (cf. section 2.3)?
- Cost-benefit for farmers to participate in the CF scheme (rewards and risks for farmers)?
- Other incentives for farmers to participate in the CF scheme?
- Challenges and costs for farmers participating in the CF scheme?

—  Assessment of the CF scheme

Business model selection and business planning

Have the following issues been considered when taking the final decision on whether to establish a CF scheme or not e.g.:

- Assessment of alternative options for and selection of an appropriate CF business model (cf. section 2.2.1)?
- Requirements for a well-functioning field management system including infrastructure and staff needs (cf. section 2.3)?
- Projection (short, medium, long run) of likely costs and returns of the CF scheme and probable time required to reach break-even?
- Development of a realistic and realisable CF business plan (cf. section 2.2.2)?

—  Assessment of the CF scheme

Case example **Inventory of preconditions for contract farming**

(Eaton and Shepherd, 2001, p. 40ff)

Socio-political assessment

Component	Rating			Remarks
	Favourable	Adequate	Marginal	
Political environment				
National		●		National political stability. Stated support for project.
Regional-district		●		Modest support for project.
Village-community	●			Positive response from local community leaders.
Public utilities & services				
Roads		●		Well maintained but limited road network.
Public transport			●	Sponsor provides project transportation.
Telephones			●	Poor. Project to provide own communications.
Electricity supply for processing	●			On national grid.
Water supply		●		Adequate for project.
Hospitals & health		●		One hospital and two health clinics.
Schools	●			One high school and three primary schools.
Government agencies		●		Positive response from research and extension sections.
Quarantine services	●			Good location and well administered.

Physical and social assessment

Market Identification

Manufactured product	•			Proven demand for manufactured product.
Fresh produce		•		Adequate demand for secondary grades in fresh form.

Physical environment

General climatic factors		•		Adequate, no frosts in season, 80% sunlight hours.
Rainfall			•	Erratic and unreliable.
Natural water availability	•			Adequate for crop requirements.
Irrigation availability	•			Favourable irrigation system for project.
Soil fertility	•			Soils very suitable for crop.
Topography		•		Only a small percentage of farms have steep eroded slopes.
Natural vegetation	•			No effect on natural vegetation and proposed crop.

Social and farming environment

Existing cropping mix		•		Practice of interrow and relay planting.
Historic productivity	•			Very productive farming community.
Cultural influences	•			Cultural obligations no obstruction to project.

Land tenure

Landowning farmers	•			58% of farmers cultivate their own land.
Tenancy farmers		•		32% of farmers on long-term leases.
Customary farmers			•	10% of farmers growing on temporary customary tenure.

References

- Action for Enterprise (AFE; 2014): Tools and Methodologies for Collaborating with Lead Firms: A Practitioner's Manual; United States Agency for International Development (USAID); p.34; available online at: <http://www.actionforenterprise.org/lf-manual.pdf>
- Baumann, Pari (2000): Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops; Overseas Development Institute, London/ UK; p. 46; available online at: http://mercury.ethz.ch/serviceengine/Files/ISN/100327/ipublication/document_singledocument/195a9f84-f606-453b-8f2c-d53f38ddcdb2/en/wp139.pdf
- Committee on World Food Security (CFS; 2014): Principles for Responsible Investment in Agriculture and Food Systems; FAO, IFAD and WFP; Rome; available online at: http://www.fao.org/fileadmin/templates/cfs/Docs1314/rai/CFS_Principles_Oct_2014_EN.pdf
- Committee on World Food Security (CFS; 2012): Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security; FAO; Rome; available online at: <http://www.fao.org/nr/tenure/voluntary-guidelines/en/>
- Eaton, Charles and Andrew Shepherd (2001): Contract Farming: Partnerships for Growth; FAO Agricultural Service Bulletin 145; Rome; available online at: <http://www.fao.org/docrep/014/y0937e/y0937e00.pdf>
- Shepherd, Andrew (2007): Approaches to linking producers to markets: A review of experiences to date; FAO Agricultural Management, Marketing and Finance Occasional Paper 13; Annex 2, p. 57ff; available online at: <ftp://ftp.fao.org/docrep/fao/010/a1123e/a1123e00.pdf>
- SNV [Netherlands Development Organisation] (n.d.): Best Practices Smallholder Farmer Contract Farming; SNV Zimbabwe; available online at: <http://apf-ethiopia.ning.com/page/tools-and-articles-on-contract-farming> (see "quick reading: SNV Zimbabwe flyer contract farming")
- Technoserve and IFAD [International Fund for Agricultural Development] (2011): Outgrower Schemes – Enhancing Profitability; Technical Brief September 2011; available online at: <http://www.ifad.org/ruralfinance/pub/technoserve.pdf>
- Wageningen UR et.al. (n.d.): Contract farming checklist: A tool for reflection on critical issues in contract farming arrangements in developing countries; available online at: <http://progresonetworkenglish.ning.com/profiles/blogs/contract-farming-checklist-a>

2.1.2/ Value chain analysis/ mapping

For purpose and selected questions cf. CF Handbook Volume I, p.52 and p.57f

Purpose

The purpose of value chain analysis/ mapping within the framework of CF analysis is twofold:

- to support a better understanding of the business reality and conditions, under which a CF scheme has to compete and subsist; and thereby
- to improve the chance of success and reduce the risk of failure of newly planned or existing CF schemes that are subject to upgrading efforts.

Output

The value chain (VC) analysis/ map provides essential information for CF business model selection (cf. tool in section 2.2.1) and CF business planning (cf. tool in section 2.2.2).

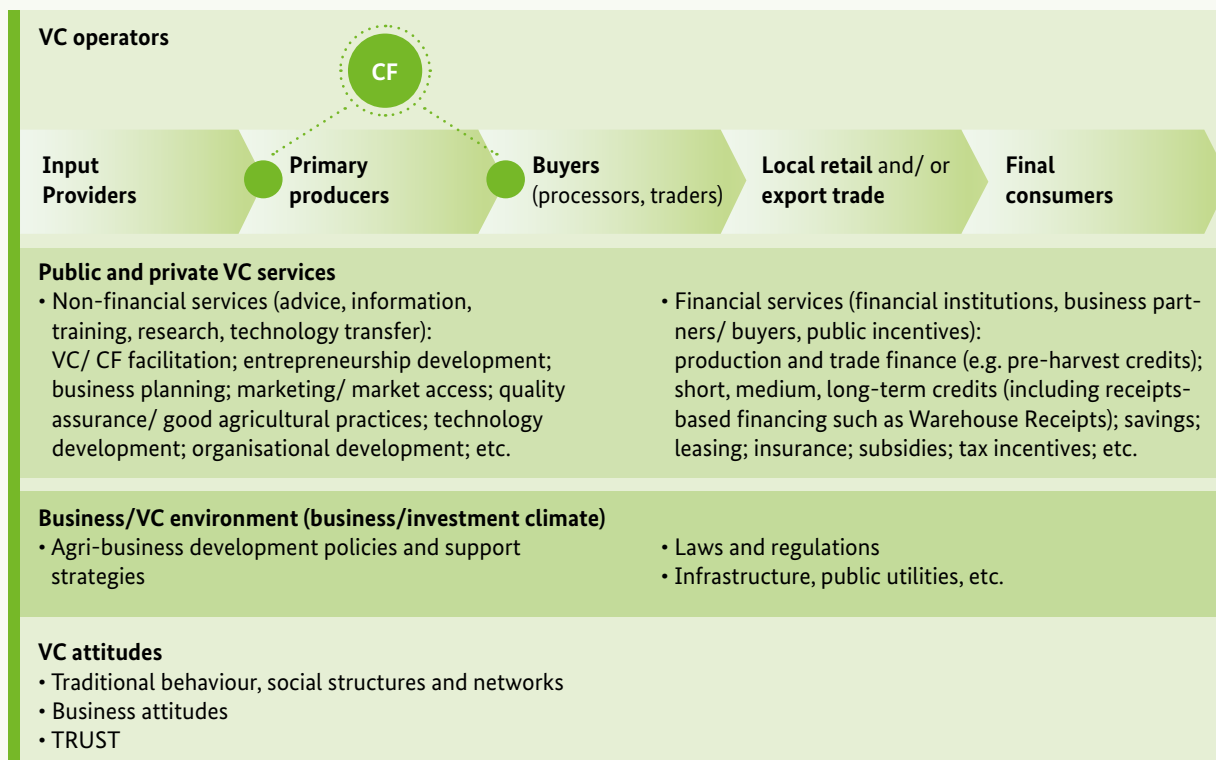
Tool Value chain analysis/ mapping

(adapted from Springer-Heinze, 1st edition, 2008; and 2nd edition, forthcoming)

As a special solution for linking farmers to markets, the contractual agreement is located at the farm supply-firm procurement node of the value chain or sometimes at the input supply-farm procurement node (see figure below).

Value chain analysis

(Will, 2014; VC = Value Chain, CF = Contract Framing)



Obviously, the entire VC system has an influence on the opportunities and risks for setting up a CF business model. Hence, VC features have to be considered in the decision on whether to develop a CF scheme and how to design respective CF arrangements. VC analysis has to provide a sufficiently clear picture of the following features prior to engaging in CF planning (cf. Volume I, p.57):

- the market opportunities and market access requirements;
- the business operators (input suppliers, farmers, processors, traders as well as cooperatives or parastatals);
- the chain functions, i.e. the flow and processes of produce handling, of information exchange and payments;
- the production, processing and transaction costs⁷ along the VC;
- the performance of public and private non-financial and financial support services;
- the business framework conditions/ investment climate (e.g. policies, regulations, infrastructure);
- the stakeholder behaviour/ attitudes that may foster/ hinder cooperation within the CF scheme.

ValueLinks, the methodology applied by GIZ, groups the methods and instruments for VC analysis/ mapping into five basic tasks (cf. Springer-Heinze, 2008 and forthcoming):

- Market research (ValueLinks Module 1, Task 1.2);
- Value chain mapping (ValueLinks Module 2, Task 2.1);
- Quantifying and describing value chains in detail (ValueLinks Module 2, Task 2.2);
- Economic analysis of value chains and benchmarking (ValueLinks Module 2, Task 2.3); and
- Analysis of opportunities and constraints (ValueLinks Module 3, Task 3.2).

Since methodologies and tools are available, interested practitioners are referred to the references below.

References

- Action for Enterprise and Match Makers Ltd. (2008): Facilitating the Development of Outgrowing Operations: A Manual; prepared for USAID; produced under: The FIELD-Support LWA; available online at: <http://www.actionforenterprise.org/paper-usaid.pdf>, p. 3f
- Lundy, Mark, Alexandra Amrein, Jhon Jairo Hurtado, Gertjan Bexc, Nancy Zamierowski, Fernando Rodríguez, Erika Eliana Mosquera (2014): LINK methodology: A participatory guide to business models that link small-holders to markets; 2nd edition: November 2014; International Center for Tropical Agriculture (CIAT), Cali, Colombia; available online at: http://ciat-library.ciat.cgiar.org/articulos_ciat/LINK_Methodology.pdf
- Lundy, Mark, Gertjan Bexc, Nancy Zamierowski, Alexandra Amrein, Jhon Jairo Hurtado, Erika Eliana Mosquera, Fernando Rodríguez (2012): LINK methodology: A participatory guide to business models that link small-holders to markets; International Center for Tropical Agriculture (CIAT), Cali, Colombia; available online at: http://dapa.ciat.cgiar.org/wp-content/uploads/big-files/2012/LINK_Methodology.pdf
- Match Makers Ltd. (2008): Fate in Contract Farming; an article for the CF seminar organised by Agri-ProFocus and EVD, 27 May 2008; available online at: <http://apf-contractfarming.wikispaces.com/file/view/Henri+van+der+Land+Matchmakers+-+FATE+article+CF+seminar.pdf>
- M4P [Making Markets Work Better for the Poor] (2008): Making Value Chains Work Better for the Poor: A Toolbook for Practitioners of Value Chain Analysis; available online at: <http://www.valuechains4poor.org/toolbook.php>
- Shepherd, Andrew (2007): Approaches to linking producers to markets: A review of experiences to date; FAO Agricultural Management, Marketing and Finance Occasional Paper 13; available online at: <ftp://ftp.fao.org/docrep/fao/010/a1123e/a1123e00.pdf>, p.57
- Springer-Heinze, A. (editor and main author; 1st edition 2008; 2nd edition forthcoming): ValueLinks Manual: The Methodology of Value Chain Promotion; Manual and Standard Material; GIZ; available online at: <http://www.valuelinks.org/>

.....

7 Transaction costs are associated with the exchange of goods at every stage of the value chain: e.g. search costs for suppliers or buyers, for market and price information; costs for monitoring of producers and quality control, for logistics and distribution, for security services for cash payments, for bribery and for dealing with contract breach.

2.1.3/ Risk assessment

For purpose and selected questions cf. CF Handbook Volume I, p.52ff and 80f and throughout the entire document

Purpose

The purpose of assessing potential risks of CF is to provide sound information for:

- decision-making of farmers and buyers on whether to invest into the establishment and/ or up-scaling of CF schemes or not;
- identification of strategies for avoiding, reducing and/ or transferring risks and for managing risks in daily CF operations;
- negotiations on the distribution of risks between farmers and buyer and conclusion of an agreement on risk sharing (contract specification);

- calculation of probable costs of risk management to be considered in CF business planning.

The risk assessment provides basic information for developing a risk management system for the CF scheme (cf. risk management in section 2.3.2).

Output

Risks of CF for farmers and buyer identified and assessed.

Introduction to risk assessment

(Contributed by: Margret Will, 2015)

Any kind of business, whether farming, trading, processing or service provision, whether micro, small, medium or large, has to deal with a variety of risks and challenges in investment and business planning as well as in daily operations. While some risks are easily identified (e.g. adverse weather conditions), some are less obvious and symptoms easily mistaken as risk factors. In the case of high transport costs or trader margins, for example, transporters and traders are often blamed of ‘exploiting farmers’. But the real cause behind high transport costs that also bear on trader margins is in many cases weak road infrastructure. The resulting high vehicle operation (e.g. fuel and drivers’ working hours) and maintenance costs (mainly repairs) remain all too often hidden; a foregone opportunity to reduce transaction costs and hence risks of weak price competitiveness.

Risk assessment forms part of the risk management cycle that any type of company should run to avoid breakdown of the farm or other business and negative effects on livelihoods in the event of harmful incidents. Risk assessment is about the identification of possible sources of risk (Step 1 in the graph on p.29) and the identification of possible outcomes (effects) that could occur as a result of adverse events (Step 2 in the graph on p.29).

Steps 3 to 5 of the risk management cycle are about strategies and tools for avoiding and mitigating risks that form integral part of CF management (cf. section 2.3.2). The cycle demonstrates that risks have to be observed and assessed continuously since risks alter with changing internal and external business conditions and risk management has to be adapted accordingly to avoid negative consequences for the business.

Even if the CF may face many of the risks listed below, not all of them imply real hazards for the success of the undertaking. While some risks can be controlled (e.g. high market access requirements through compliance with food safety/ quality standards) and for some risks measures can be developed to reduce adverse effects (e.g. improved varieties and technologies to adapt to climate change), other risks cannot be contained by the CF business partners (e.g. volatile exchange rates, natural disasters or politically motivated market interferences). Assessing the risks and related causes is the first step in the risk management system of a CF scheme.

The following list of potential risks (see p.30) for CF is meant to help farmers and buyers to identify threats for their individual businesses and the CF scheme.

Steps to be followed in managing risks : Steps 1 and 2 relate to risk assessment

(adapted from: Kahan, 2013, p.15)

**Potential risks in contract farming**

(see following pages)

Note:

Farmers and buyers face a number of risks, which are often interconnected. To understand the different risk factors and their possible mutual influence on each other, a sound risk assessment is necessary that can serve as basis for developing a risk management strategy (cf. section 2.3.2).

Potential risks in contract farming

CF external risks that can usually not be controlled by CF partners

Natural risks ('force majeure')

- adverse weather conditions (e.g. deficit/ excess rainfall/ temperature, hail, strong winds)
- natural disasters (e.g. floods, droughts, hurricanes, earthquakes)
- biological hazards (e.g. invasive pests and diseases, large-scale contamination)
- environmental hazards (e.g. soil degradation, water quality, declining water availability)
- climate change (e.g. increased extreme weather, unpredictable weather conditions)

Market-related risks

- uncertain and volatile prices (inputs and outputs)
- uncertain quality, availability and accessibility of inputs (e.g. improved/ certified seeds)
- disrupted output markets (e.g. following the global financial/ economic crisis)
- increased concentration of customers (mainly retailing/ supermarket chains)
- increasing market access requirements (e.g. food safety or sustainability standards)

Service-related risks

- weak non-financial services (e.g. research, rural advisory services) requiring investments of the off-taking company into services required by the farmers

- weak financial services limiting investments and re-investments into farming, handling, processing and CF infrastructure
- inadequate/ insufficient agribusiness-related vocational education resulting in low business and financial literacy levels

Institutional/ political risks

- inflation of raw material costs
- currency fluctuations
- changing/ uncertain policies (e.g. fiscal/ tax policies, trade and sector support policies)
- erratic/ unpredictable public sector market interventions (e.g. procurement/ sales)
- weak/ uncertain regulatory decisions and enforcement (e.g. food safety)
- inadequate land policies/ insecure tenure systems
- red tape and corruption

Security risks

- in-country political instability/ social unrest
- nationalisation/ confiscation of assets
- intra-country conflicts with neighbouring countries (resulting e.g. in trade disruptions)

CF internal risks that can usually be controlled by CF partners: generic value chain risks

Production and farm-household risks

- slow adoption of improved technologies by farmers
- inadequate use of inputs (seeds, fertilizers, plant protection products)
- growing resistance of pests and diseases against plant protection products
- inadequate/ not well-maintained farm equipment resulting in breakdowns
- ageing farmer community and lack of a succeeding generation
- inadequate balance between farm-household subsistence needs and CF cash crops
- biological hazards (pests and diseases, contamination)
- environmental hazards (e.g. soil degradation, water quality, declining water availability)

Procurement risks

- low volumes of raw material supplies or supply disruptions (e.g. due to production risks or side-selling)
- low quality of raw material supplies (e.g. due to non-compliance with agreed standards)
- competition for supplies (risk of side-selling by farmers and 'poaching' by competitors)
- difficulties in attracting and retaining competent and committed farmers/ lead farmers
- difficulties in attracting a critical mass of farmers for reaching scale economies
- procurement cost fluctuations (e.g. due to production risks, global market price developments e.g. for fertilizers)
- high post-harvest losses (e.g. due to weather conditions, inadequate quality management)

Transport and logistics risks

- high transaction costs due to weak road infrastructure
- changing transport costs (e.g. fuel costs)
- long distances from farm to collection point
- inadequate size of catchment areas for efficient procurement, transport and logistics

Processing risks

- weak infrastructure (water, energy, power)
- rising energy costs
- insufficient utilisation of installed capacities resulting in high unit processing costs
- inadequate/ not well-maintained firm equipment resulting in breakdowns

- contamination due to weak hygiene management resulting in rejection/ loss of markets
- safety and health hazards for workers

Financial risks

- limitations of equity financing/ risk of over-indebtedness
- high/ fluctuating interest rates for credit financing

Marketing risks

- failing to meet target market access requirements (e.g. food safety/ quality standards)
- failing to innovate in response to changing demand patterns (e.g. product diversification)

CF internal risks that can usually be controlled by CF partners: specific CF business risks

CF business model and strategy risks

- inadequate business model for the prevailing situation/ capacities of farmers and buyer
- failing to adapt the business model/ strategy to changing internal/ external conditions
- dependency of smallholders on one single cash crop without alternatives in case of crisis

Contractual risks

- incomplete and in-transparent contract clauses
- default of farmers (e.g. side-selling, diversion of inputs/ cash loans, non-repayment)
- default of buyer (late input delivery, high rejection rates, non-payment)
- over-dependency of farmers on a single buyer
- over-dependency of farmers on a single cash crop
- strong competition for the buyers (risk of “poaching” by other buyers)
- inadequate integration of CF crops into prevailing farming systems
- lack of provisions for dealing with default (e.g. mediation, arbitration, sanction systems)

CF management/ operations risks

- lack of trust and conflicts between CF business partners
- weak management capacities, lack of management commitment
- bad forecasts and planning resulting in poor management decisions

- shortages of raw materials or overproduction that may not be marketable
- inadequate field infrastructure and field operations management
- inability to adapt to changing markets requiring change of products, processes or outlets
- weak competitiveness due to high production/ processing/ transaction unit costs
- adverse selection of farmers only interested in embedded services but not in the CF
- collapse of farmer based organisations to the detriment of scale economies
- conflict of interest among field agents responsible for extension and enforcement issues

Financial risks

- inability to pay farmers in case of liquidity shortages/ tense cash-flow
- credit default (e.g. when buyers guarantee for farmer loans)
- inability to reach break-even (e.g. due to weak planning or management failure, lack of trust resulting in side-selling, break-down of markets)

Labour force risks

- ageing farmer communities/ lack of succession
- inadequate capacities/ skills of farmers to take up innovations/ take business decisions
- insufficient availability of skilled workers
- high turnover rate of field agents/ workers

Template CF risk profile (identification and description of critical risk factors)

(Contributed by: Margret Will, 2015)

The list of “Potential risks in contract farming” (see above) facilitates farmers and buyers to identify threats both for their individual businesses and the CF scheme.

This template assists to develop a risk profile including a description of potential risks that are critical for the viability of the CF scheme, a classification of the risks according to likely effects (negative or positive), probability/ frequency of risk events and a decision whether action has to be taken to manage the risk.

The risk profile provides basic information for the CF risk management system (cf. section 2.3.2), namely for:

- developing a risk monitoring system providing an early warning system for CF risk management;
- designing a risk management strategy that helps avoid, reduce and/ or transfer risks;
- calculating related costs for risk management; and
- developing the management and financial parts of the CF business plan.

Which risks? Briefly describe potential risks for the CF	Who is exposed? F = farmer B = buyer I = inter- mediary O = others?	Which effects (negative and positive) are expected? Briefly describe likely effects and interconnectedness re: V = volume Q = quality C = costs P = prices O = others/ what?	Probability/ frequency of risk events?	Severity of risk effects?	Need for risk manage- ment/ action? (cf. section 2.3.2) Y = Yes N = No
			0 = negligible + = considerable ++ = critical		
CF external risks that can usually not be controlled by CF partners					
Natural risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Market risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional/ political risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other risks, namely	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which risks? Briefly describe potential risks for the CF	Who is exposed? F = farmer B = buyer I = inter- mediary O = others?	Which effects (negative and positive) are expected? Briefly describe likely effects and interconnectedness re: V = volume Q = quality C = costs P = prices O = others/ what?	Probability/ frequency of risk events?	Severity of risk effects?	Need for risk manage- ment/ action? (cf. section 2.3.2) Y = Yes N = No
CF internal risks that can usually be controlled by CF partners: Value chain risks					
Production risks	<div></div>		<div></div>	<div></div>	<div></div>
Procure- ment risks	<div></div>		<div></div>	<div></div>	<div></div>
Transport and logistics risks	<div></div>		<div></div>	<div></div>	<div></div>
Processing risks	<div></div>		<div></div>	<div></div>	<div></div>
Other risks, namely	<div></div>		<div></div>	<div></div>	<div></div>

Which risks? Briefly describe potential risks for the CF	Who is exposed? F = farmer B = buyer I = inter- mediary O = others?	Which effects (negative and positive) are expected? Briefly describe likely effects and interconnectedness re: V = volume Q = quality C = costs P = prices O = others/ what?	Probability/ frequency of risk events?	Severity of risk effects?	Need for risk manage- ment/ action? (cf. section 2.3.2) Y = Yes N = No
CF internal risks that can usually be controlled by CF partners: Management risks					
Contractual risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CF opera- tions risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labour force risks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other risks, namely	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Case example **Risk assessment – Cotton price risks in West Africa**

(Peltzer and Roettger, 2013, p.19; verbatim citation)

The following provides an example for global market price risks combined with operational and financial risks:

The strongly fluctuating world market prices not only create problems for the farmers, but also for the cotton companies and traders, especially in West and Central Africa, where the purchase prices are set prior to planting. Here, cotton companies need to forward sell at least part of the harvest six to 14 months in order to secure the announced price. Consequently, the cotton companies face significant production risks, as the forward sale occurs at a time when the actual production cannot be predicted.

Another risk is that a counterparty – for example a spinning mill in China – will not fulfil the buying contract, whether under a pretext or not, when cotton prices decline sharply in the meantime. This also can result in a situation like the one seen in January 2011 in

West Africa. While the cotton companies in Benin and Cameroon secured their sales prices six months before the harvest, the spinning mills in neighbouring Nigeria did not buy ahead. Since the cotton price rose sharply once again between the time of the forward sale (June/ July 2010) and harvest time in January 2011, the spinning mills and gins in Nigeria were able – and had no choice but – to offer significantly higher prices for the cotton than the cotton companies in Benin and Cameroon were able to pay their farmers. Many farmers in these two countries broke their contracts and sold their cotton in Nigeria instead. The cotton companies in Benin and Cameroon were disadvantaged and were only able to fulfil their forward delivery contracts at a great effort and, in part, with substantial losses.

For more case examples cf. risk management in section 2.3.2.

References

- Curtis, Kynda (n.d.): Agribusiness Risk and Risk Management Strategies; University of Nevada; available online at:
http://www.wnc.edu/files/departments/ce/sci/risk_management-curtis.pdf
- Kahan, David (2013): Managing Risk in farming; FAO Farm Management Extension Guide 3; first printed: 2008; Reprint: 2013; ISBN 978-92-5-107543-2 (print); W-ISBN 978-92-5-107544-9 (PDF); available online at:
<http://www.fao.org/docrep/011/i0412e/i0412e00.htm>
- Kukeawkasem, Yotsawin (2009): Risk Attitudes and Risk Management Strategies of Swine Producers in Thailand; Farming & Rural Systems Economics Vol. 109, edited by Werner Doppler and Siegfried Bauer; Margraf Publishers, Weikersheim/ Germany; ISBN 978-3-8236-1580-4; ISSN 1616-9808; Abstract available online at:
http://www.tropentag.de/2009/abstracts/links/Kukeawkasem_FMNBDKpG.pdf
- Peltzer, Roger and Daniela Roettger (2013): Cotton Sector Organisation Models and their Impact on Farmer's Productivity and Income; German Development Institute (GDI/ DIE) Discussion Paper 4/2013; available online at:
<http://www.die-gdi.de/discussion-paper/article/cotton-sector-organisation-models-and-their-impact-on-farmers-productivity-and-income/>

2.1.4/ Farm and firm business model analysis

Note:

the terms 'farm business model' and 'farming system' are used synonymously

For purpose and selected questions cf. CF Handbook Volume I, p.16ff with Box 1 and Figure 1; p.22; p.30; p.33; p.45ff
cf. CF Handbook Volume II, section 4 "Tool for writing contract farming case studies"

Purpose

The purpose of business model analysis is to assist farmers/ farmer groups and firms to take informed business/ investment decisions. The tool provides guidance for:

- assessing strategies and operations of farmers/ farmer groups and firms;
- estimating the cost-benefit, the return on investment and the expected break-even point;
- assessing the viability of the farm's/ farmer group's and the firm's business models;
- identifying the baseline for the start-up of the CF business model and business plan;

- improving entrepreneurial skills and reasoning of farmers ('farming as a business') by using participatory tools for farm business model/ farming system analysis.

Output

Business models are developed for:

- segments of different typical farming systems/ farm households⁸ participating in the CF;
- the buyer company; and, if relevant, for:
- intermediaries or other service providers assuming tasks in/ for the CF scheme.

Tool Farm and firm business model analysis

Note:

the terms 'farm business model' and 'farming system' are used synonymously

(adapted from Osterwalder and Pigneur, 2010; and Lundy et.al., 2012; partly verbatim citation)

A business model describes the rationale of how a company (farm, farmer group or firm) or an organisation creates, delivers and captures value.

Business models describe the structures and resources a company (farm or firm) uses for succeeding with its products in the market and realising profits. Business models are not static but have to be adapted to changing market conditions (e.g. consumer preferences shifting from traditional to new varieties, rising importance of supermarkets as buyers, ever-more stringent standards or government interventions e.g. in staple crop markets). Even if farmers and firms usually do not explicitly think in business models, in reality, they adapt them frequently sometimes from season to season (e.g. farmers adapting planting decisions to last season's price hikes or lows).

The Business Model Canvas provides a tool for visualising a company's (farm, farmer group or firm) business model (Osterwalder and Pigneur, 2010). By illustrating the inter-linkages between a

company's strategy, activities and outcomes, the canvas supports:

- the planning of a new business venture;
- the description of an existing business and its current features and performance;
- the identification of opportunities for upgrading an existing business (identification of levers); and
- the identification of opportunities for linking with suppliers or buyers as business partners e.g. in a CF scheme.

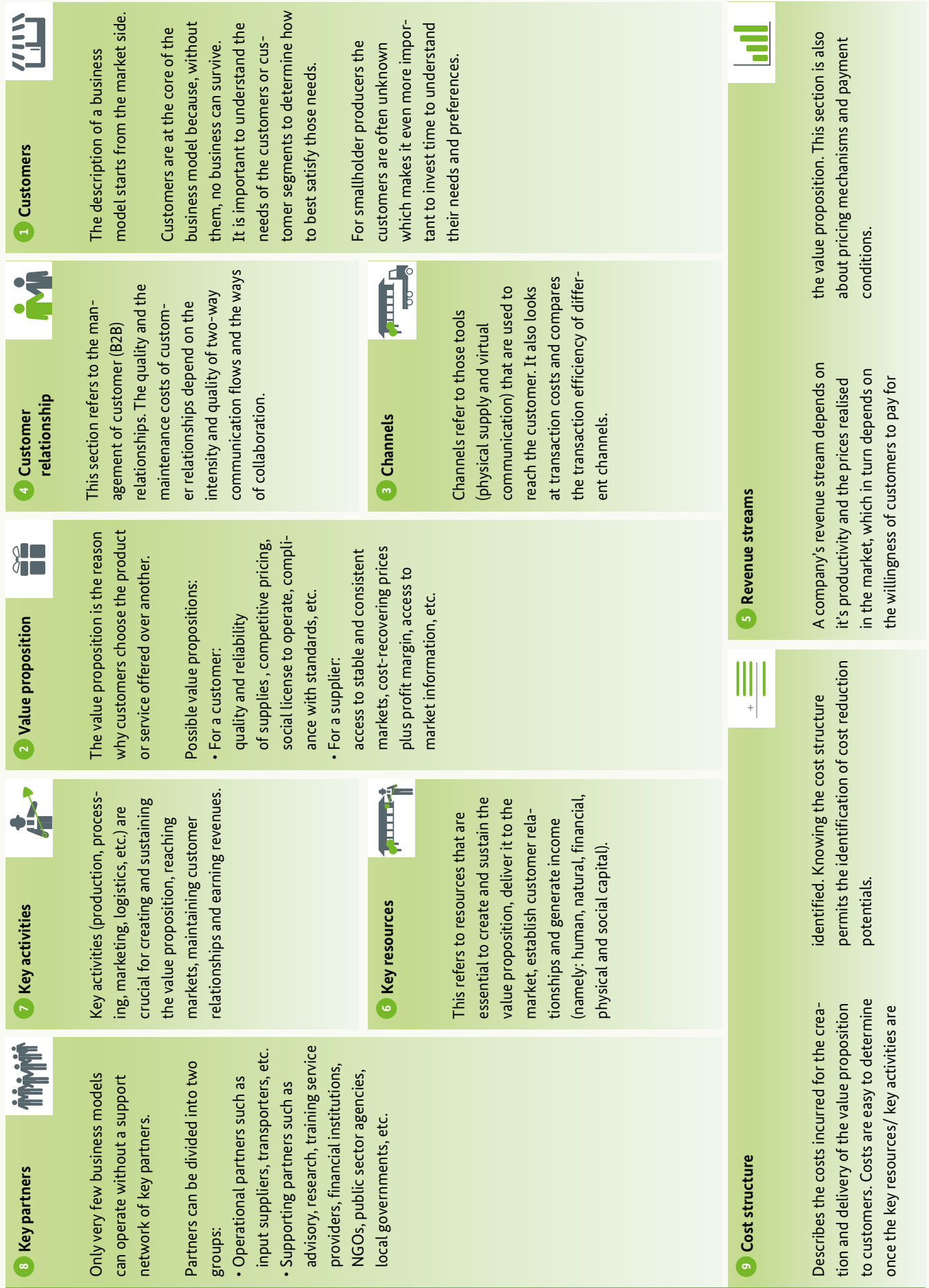
The business model canvas consists of nine building blocks (see following figure):

1. customers;
2. customer relationships;
3. distribution channels;
4. value proposition;
5. key partners;
6. key activities;
7. key resources;
8. cost structure; and
9. revenue streams.

.....
⁸ Different segments of farming systems/ farm households featuring similar characteristics. Segmentation facilitates the identification of target group oriented strategies and actions even for large numbers of smallholder farms.

Business Model Canvas

(adapted by the author from: Lundy et.al., 2012, p. 40ff, adapted from: Osterwalder and Pigneur, 2010; largely verbatim citation)



The description of the business model starts from the customer side, since a firm or farm will only realise revenues if there is a market and products can be sold at remunerative prices (value capturing). In line with the definition of business models (see above), the Business Model Canvas facilitates structured discussions on the way a farm or firm:

- creates value (building blocks 2, 6, 7, 8, 9);
- delivers value (building blocks 1, 3, 4); and
- captures value (building block 5).

The name Business Model Canvas already hints at the possibility to use pin-boards and moderation cards for visualisation. If pin-boards are not available, moderation cards can also be laid out on the floor or on a table. Given the simple yet comprehensive structure of the Business Model Canvas, users should not face major problems in completing it, perhaps apart from assessing the cost structure.

Dealing with lack of reliable data

The assessment of the cost structure usually suffers from lack of data. “A major challenge in applying a business model approach to small holder agriculture is the general lack of cost data, specifically at the farm level. ... one of the most effective ways to generate reasonable cost data is through the use of farmer focus groups who, with the help of a facilitator, develop a crop cycle timeline from planting to harvest and on-farm post-harvest activities. For each activity identified, farmers are asked for the cost either in time or in cash. At the end of the exercise, all activities are converted to a cash value and summed to arrive at a clear estimate of costs. A group approach for this

effort is useful as it provides social control and on-the-fly data checking between peers to control for outliers. It also allows for discussion about the activities implemented and can help highlight potential areas for efficiency gains or cost savings. To be effective, this exercise should be conducted with more than one farmer focus group and the results compared.” (Lundy et.al., 2012, p.55).

Many farmers lack the necessary skills to keep farm records and to manage their business costs and finances. Likewise, many small and medium sized enterprises do not know their cost structure, not to speak of micro enterprises. However, since the cost structure and revenue streams are indispensable elements of any business model, users have to develop the necessary skills. For smallholder farmers, respective tools (partly commodity-specific) are approaches such as Farmer Business Schools or Farming as a Business. These approaches are based on participatory methods allowing farmers to ‘learn by doing’ and to generate farm data with illiterate farmers (see Dorward et.al., 2000 and 2007 and case example below).

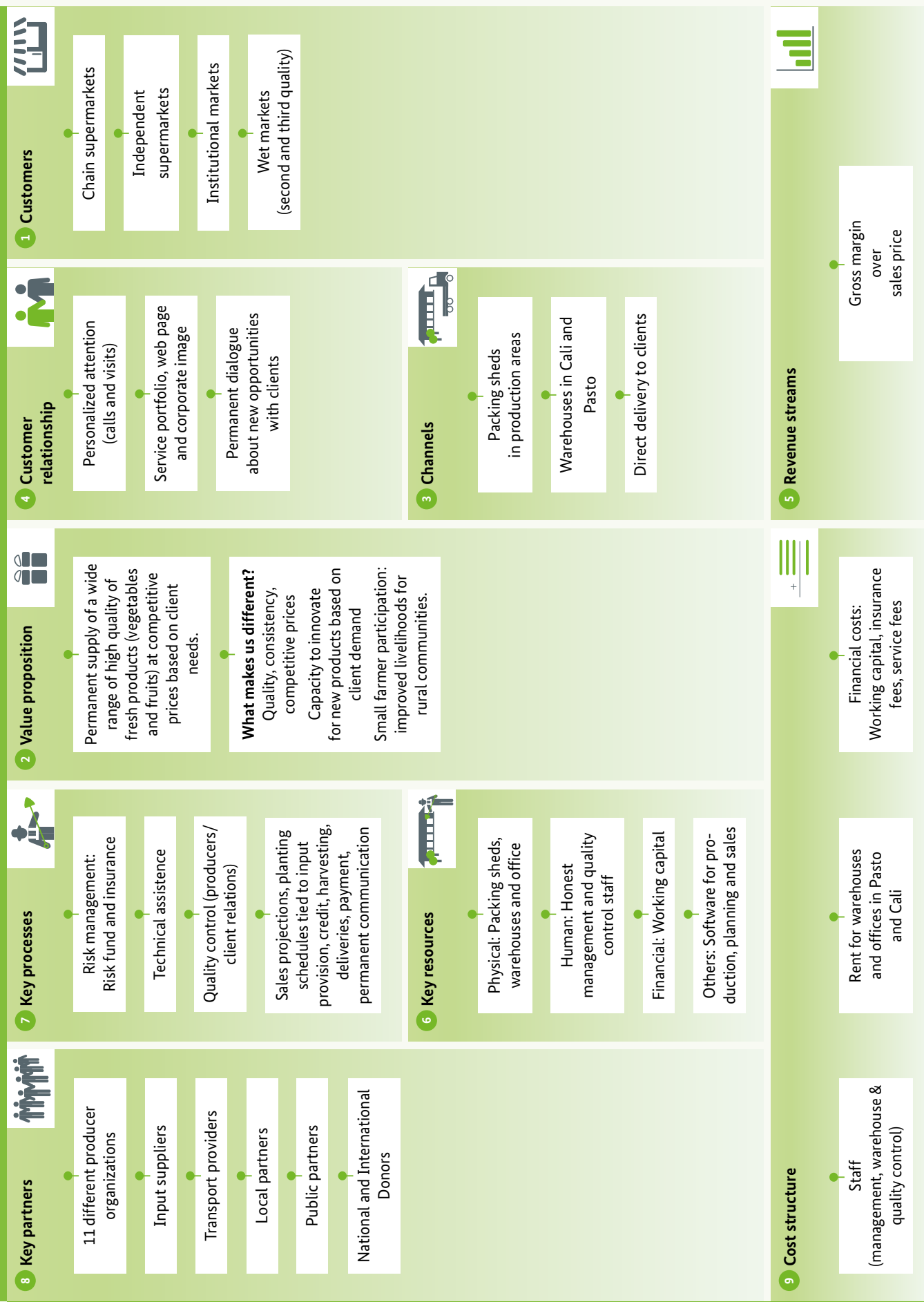
Recommendations

When estimating the cost-benefit, return on investment and the expected point of break-even it is recommended to make conservative estimates in order:

- not to raise wrong hopes regarding expected profits;
- not to risk over-indebtedness following investments into business model upgrading; and
- not to risk a consequential early breakdown of the improved business model.

Case example Business model canvas: Alianza Hortofrutícola del Sur (Colombia)

(Lundy et al., 2012, p.70)



[illegible]

References

- Dorward, P., D. Shepherd and M. Galpin (2007): Participatory farm management methods for analysis, decision making and communication; FAO; available online at: http://www.fao.org/fileadmin/user_upload/ags/publications/participatory_FM.pdf
- Galpin, M, P. Dorward and D. Shepherd (2000): Participatory Farm Management (PFM) methods: a field manual; The University of Reading and DFID; available online at: <http://wap.rdg.ac.uk/web/FILES/apd/DerekShepherdPFMPart2.pdf>
- Lundy, Mark, Alexandra Amrein, Jhon Jairo Hurtado, Gertjan Bex, Nancy Zamierowski, Fernando Rodríguez, Erika Eliana Mosquera (2014): LINK methodology: A participatory guide to business models that link small-holders to markets; 2nd edition: November 2014; International Center for Tropical Agriculture (CIAT), Cali, Colombia; available online at: http://ciat-library.ciat.cgiar.org/articulos_ciat/LINK_Methodology.pdf
- Lundy, Mark, Gertjan Bex, Nancy Zamierowski, Alexandra Amrein, Jhon Jairo Hurtado, Erika Eliana Mosquera, Fernando Rodríguez (2012): LINK methodology: A participatory guide to businessmodels that link small holders to markets; International Center for Tropical Agriculture (CIAT), Cali, Colombia; available online at: http://dapa.ciat.cgiar.org/wp-content/uploads/big-files/2012/LINK_Methodology.pdf
- Osterwalder, A. and Y. Pigneur (2010): Business Model Generation – A Handbook for Visionaries, Game Changers, and Challengers; only preview (2009) available online at: http://www.businessmodelgeneration.com/downloads/businessmodelgeneration_preview.pdf

2.1.5/ Farmer, lead farmer, farmer organisation and firm selection

For purpose and selected questions: cf. CF Handbook Volume I, p.62f

Purpose

The purpose of this tool is to guide initiators of CF (usually buyers, sometimes farmer based organisations or 3rd party facilitators) in the selection of business partners that promise to be capable of making planned CF ventures a success while reducing the risk of default on either side.

Specific objectives:

- facilitate the identification of partners for starting up a CF or for up-scaling an existing CF scheme;

- support a rapid assessment of capacities/ SWOT of farmers, lead/ nucleus farmers, farmer-based organisations (FBO) and/ or buyers for contributing to the success of a CF scheme.

Output

Appropriate partners for starting up or up-scaling a CF scheme are selected.

Template **Farmer selection**

(Contributed by: Margret Will, 2015)

Benefits/ incentives for farmers

(cf. GIZ CF Handbook Volume I, p. 22ff)

What benefits can farmers expect from concluding a contract, motivating them to join the CF?


- higher and more stable incomes?
- access to markets?
- access to more affordable credits?
- access to inputs, technologies, extension?
- access to training and information services?
- reduction of production and marketing risks?
- Other benefits?

—  Assessment of benefits/ incentives for farmers

Opportunities and risks of smallholder production

- Which advantages does smallholder production have over other production systems?
- Can the often high risks of smallholder production be reduced? E.g. through:

- (i) building farmers' capacities for reducing production risks (cf. section 2.1.6/ capacity development and service needs assessment); (ii) insuring farm production at reasonable cost (e.g. weather-indexed insurance).

—  Assessment of opportunities and risks of smallholder production

Individual farmer characteristics⁹

- Does the farmer own the land (to avoid problems stemming from landlord-farmer disputes)?
- If land is leased: is the documentation clearly written and understood by farmers?
- In case of loans involved: Is the farmer able/ willing to repay loans (e.g. viability of the farming system; is there a repayment track record)?
- Can a reference person reassure that the farmer respects agreements and is trustworthy?
- Is the farmer able and willing to comply with company requirements (good practices, adequate storage, etc.)?
- Is the farmer able and willing to keep records (alternatively to be organised as a group)?
- Can the farmer build on existing knowledge of the crop (local/ traditional knowledge)?
- Is the farmer personally involved in production or is he a 'distance farmer' instructing workers by phone?
- Is the farmer able to implement advanced production practices (e.g. irrigation, etc.)?
- Is the farmer a good listener and willing to follow the company's field agents' and/ or lead farmers' suggestions/ directives?
- Is the farmer pro-active and willing to invest in improved production practices?
- Does the farmer have the minimum amount of land/ production capacity to produce the agreed quota and in the required quality?
- Does the land have appropriate soils and sufficient water for the intended crop?
- Is the farmer's land contiguous with that of other contracted farmers (to facilitate monitoring, communication, equipment use, collection, etc.)?

—  Assessment of individual farmer characteristics

Scale of farmer operations

Can a degree of efficiency of smallholder production be achieved that compensates for usually high transaction costs related to fragmented systems of input distribution, communication, collection, transport, etc.? For example through:

- building farmers' capacities for increasing productivity/ output volumes (e.g. through extension, training, access to inputs);
- motivating farmers to join forces in farmer groups/ associations;
- developing organisational capacities of farmer based organisations (internal structures, member control and participation, member services, external relations, etc.).

—  Assessment of scale of farmer operations

Template **Farmer-based organisation (FBO) selection**

(Contributed by: Margret Will, 2015)

FBO members' capacities


(Cf. "Template: Farmer selection" (see above))

Prospective roles/ tasks of the FBO in the specific CF scheme

Defining the potential role of FBOs in CF is decisive for defining selection criteria.

FBO roles/ tasks may include:

- assist farmers achieving scale economies to reduce CF transaction costs;
- assist the buyer in the identification and selection of farmers;
- support procurement schedule development (crop timing, pick-up times, etc.);
- assist with input distribution and monitoring of farmers;
- disseminate buyer information to farmers (e.g. on quality requirements, delivery dates);
- communicate information from farmers' side to the buyer (e.g. harvest forecast);
- provide technical advice and assist in the establishment/ maintenance of demonstration plots;
- support the organisation of trainings and facilitate peer learning among members;
- probably provide specific services such as plant protection, record-keeping;
- if viable, set up collection points and organise logistics/ transport;
- assist the company's procurement operations, either at farm gate or at collection points;
- realise the initial quality assessment of farmers' supplies at the collection point;
- support selling of under-grades rejected by the buyer but still marketable locally;
- probably receive payments/ distribute to farmers (usually farmers prefer individual payments);
- probably facilitate group lending (usually difficult; only possible with very strong FBOs).


—  Description of prospective roles and tasks of the FBO in the CF scheme

Capacities of the FBO regarding prospective roles/ tasks in the CF scheme

Focus is laid on criteria helping the buyer to identify FBOs that can best respond to the company's particular needs and farmers' particular strengths and weaknesses.

Potential criteria include:

- location (e.g. walking distance for members, transport distance to collection points);
- size of membership (note: cohesion and social control is often better in smaller groups);
- a good reputation of the FBO, respect and trust of members in the FBO's leadership;
- ability to guide and assist members and convince them to take up innovations;
- honesty in dealings with members and capacity in managing membership;
- loyalty to the company and honesty with regard to financial information;
- means to travel and communicate with member farmers prior to receiving fees / commission;
- leadership/ officials/ staff having time to devote to members (even if involved in other activities);
- willingness and capacities to carry out required FBO tasks (visiting farmers, meetings, etc.);
- familiarity with the targeted crop(s) and farming systems;
- storage space for input distribution/ produce procurement (advantageous, not mandatory);
- willingness to listen to members and ask for their traditional knowledge/ opinions;
- existence of basic and technical education and literacy skills among leadership/ officials/ staff;
- being progressive and willing to facilitate the adaptation and adoption of new technologies.

—  Assessment of FBO capacities re prospective roles/ tasks in the CF scheme

Template **Lead/ nucleus farmer selection**

(adapted from: Action for Enterprise and Match Makers Ltd. (2008), p.13ff)

Role of lead/ nucleus farmers in the CF scheme

Defining the role of the lead/ nucleus farmer is decisive for defining selection criteria.

Lead/ nucleus farmer roles and functions may include:

- assist farmers/ the buyer achieving scale economies to reduce CF transaction costs;
- assist the buyer in the identification and selection of farmers;
- support procurement schedule development (crop timing, pick-up times, etc.);
- assist in the organisation of trainings and set up/ maintenance of demonstration plots;
- assist with input distribution and monitoring of farmers;
- provide technical advice and disseminate company information to farmers;

- assist the company's procurement operations and logistics;
- assist the company or farmer groups in setting up collection points;
- realise the initial quality assessment of farmers' supplies;
- probably receive payments and distribute to farmers.

! Note:

It is recommended that the company procures directly from individual farmers or farmer groups, not through lead farmers. The same applies to payments, which are preferably realised directly and not via lead/ nucleus farmers.


—✍ Description of prospective roles and tasks of lead farmers in the CF scheme

Capacities of potential lead farmers regarding prospective roles/ tasks in the CF scheme

Focus needs to be laid on criteria helping to identify lead/ nucleus farmers who can best respond to the buyer's particular needs and farmers' particular strengths and weaknesses.

Potential criteria include:

- commitment to the farmer community (money alone does not work);
- reputation of the candidates, respect and trust of the farmer community in the personality;
- willingness to listen to farmers and ask for their traditional knowledge/ opinions;
- ability to convince farmers to listen, learn and cooperate;
- honesty in dealings with farmers and transparency in communication with farmers;
- loyalty to the buyer's company and honesty with regard to financial information;
- ability/ means to travel and communicate with farmers;
- time to devote to farmers (even if involved in other business, NGO activities, etc.);
- willingness to carry out required lead farmer tasks (visiting farmers, meetings, etc.);
- familiarity with the targeted crop(s) and farming systems;
- existence of basic and technical education and literacy skills (e.g. for record-keeping);
- being progressive and willing to adapt and adopt new technologies;
- storage space for input distribution/ collection of produce (advantageous, not mandatory).

—  Assessment of lead farmers' capacities regarding prospective roles/ tasks in the CF scheme

Template Firm (buyer) selection

(adapted from: Action for Enterprise and Match Makers Ltd. (2008), p.13ff


Cf. also GIZ Contract Farming Handbook, Volume I, p.55)

Role of firms (buyers) in the CF scheme

Defining the potential role of the buyer in the CF scheme is decisive for defining selection criteria.

Buyer roles and functions may include:

- assure remunerative markets for the final products of the CF scheme;
- develop the firm's strategy based on an analysis of the company's competitive situation in target markets;
- develop a procurement strategy based on market requirements and supply situation;
- identify production areas based on supply potential and considering procurement transaction costs;
- develop a CF business model and CF business plan (incl. investment and operational costs);
- select FBOs, lead/ nucleus farmers and producers;
- develop a CF upgrading and service strategy (training, advice, inputs, pre-financing, etc.);
- develop and establish a CF management system for CF field operations (incl. two-way communication between field level and company, organisation of service provision, input distribution, pre-financing, produce collection, quality control, record-keeping, traceability, monitoring of farmers, establishment of payment and reimbursement procedures, etc.).

—  Description of prospective roles and tasks of firms (buyers) in the CF scheme

Capacities of potential firms (buyers) regarding prospective roles/ tasks in the CF scheme

In case FBOs or a 3rd party intend to initiate a CF scheme and search for buyers interested in a mutually beneficial and long-term partnership, selection criteria may include:

- firm reputation, respected and trusted by farmers (e.g. in other parts of the country);
- commitment to establish mutually beneficial long-term business relations with farmers;
- willingness to listen to farmers and ask for their traditional knowledge and their opinions;
- honesty in dealings with farmers and committed to working with farmers;
- knowledge on CF business models and experience in CF management;
- capacities (management, financing, technical) for establishing and operating a CF scheme;
- CF business model and business plan promising success (it is recommended that firm and FBOs develop both jointly);
- sufficient time horizon and financial resources to reach break-even (this may take several years);
- willingness to carry out embedded services as agreed (e.g. input supplies, extension);
- familiarity with the targeted crop(s), farming systems and post-harvest processes;
- solutions for logistics and transport for input distribution and produce procurement.

—  Assessment of the firm's capacities regarding prospective roles/ tasks in the CF scheme

Case example **Farmer and/ or lead (nucleus) farmer selection**

(Eaton and Shepherd (2001), p.87ff; verbatim citation)

Following the choice of production areas the next requirement is to select farmers. Management must decide how many farmers should be offered contracts and the criteria for their selection.

Farmers can be approached individually, through the offices of agriculture departments, through community leaders and farming cooperatives, or by an open invitation to apply. Selection criteria should be based initially on an assessment of the suitability of the farmers' land and confirmation of their tenure security. If those two conditions are met, an evaluation needs to be made of the prospective contractor's farming experience, past production record, desire to cooperate and the extent of his/her family labour inputs. All selection appraisals must take into account the complexity of the household economy and examine how the contracted crop can be incorporated within the farmer's total farming mix.

Community leaders and local government officials are, in general, dependable sources of knowledge on the capabilities and attitudes of farmers in their villages and districts. Managers should be aware, however, that petty rivalries and extended family obligations are characteristics of some rural societies. Farmer selection therefore should also be judged on the manager's own intuition and available independent assessments. In the case of the production of French beans in Kenya ... the factory uses local government administration, government agricultural extension offices and its own field staff to select farmers. Criteria used for selection are soil type, the agricultural experience, competence and reliability of the farmers, combined with their ability to cooperate with others.

While failure to select some farmers may cause resentment, the arbitrary selection of farmers who fail to produce the desired quality and quantities can be commercially disastrous. In one venture in Thailand, for example, farmer selection for the cultivation of vegeta-

bles for canning was deemed to be very lax. Because of high product demand and land shortages, the company accepted virtually all farmers. Furthermore, application forms were circulated after most farmers had signed their contracts, a practice that caused an atmosphere of confusion and uncertainty. Managers should, wherever possible, verify that the production potential of any district is in excess of their requirements in order to provide them flexibility to choose the most qualified farmers.

The criteria for farmer selection are likely to vary according to the type of crop. Less rigorous standards can be adopted for short-term seasonal crops in that farmers who fail to perform can be excluded from subsequent contracts. For tree crops, however, a long-term commitment is required and thus sponsors need to be assured of the reliability of the farmers and of their ability to continue to farm for many years. In an oil palm venture in Ghana, for example, the majority of the selected farmers were "veterans" with at least twenty-five years' experience. This resulted in an age and marital composition that could be expected to raise constraints for future production because there were few younger farmers and the farmers were limited to immediate family labour only. Transmigration or settlement schemes in a nucleus estate context involve the risk that the farmers will be unhappy in their new environment and wish to return to their original homes. Rigorous selection procedures can minimize, but not altogether avoid, such risk.

Crops such as cotton, maize, tobacco and vegetables are grown under contracts that are normally reviewed and renegotiated on a seasonal basis. Periodic reviews allow for pricing and technical adjustments at the beginning of each season, for new farmers to be registered and, where appropriate, for the quotas of farmers who are less productive to be reduced to levels they can reasonably manage. When a farmer requires the use of outside labour, an assessment of the availability of such labour and the farmer's ability to manage it will be necessary.

References

- Action for Enterprise and Match Makers Ltd. (2008): Facilitating the Development of Outgrowing Operations: A Manual; prepared for USAID; produced under: The FIELD-Support LWA; available online at: <http://www.actionforenterprise.org/paper-usaid.pdf>
- Eaton, Charles and Andrew Shepherd (2001): Contract Farming: Partnerships for Growth; FAO Agricultural Service Bulletin 145; Rome; available online at: www.fao.org/docrep/014/y0937e/y0937e00.pdf
- Hoffmann, V., A. Christinck and M. Lemma (2009): Rural Extension – Volume 2: Examples and Background Material; Margraf Publishers GmbH Germany; ISBN 978-3-8236-1572-9; p.389ff

2.1.6/ Capacity development (CD) and service needs assessment

For purpose and selected questions cf. CF Handbook Volume I, p.64f

Purpose

The tool provides guidance for the development of:

- an assessment of existing capacities and capacity gaps of farmers, lead/ nucleus farmers, farm workers, field staff and firm management for starting up and operating a CF scheme;
- an inventory of non-financial and financial capacities required to enhance the competitiveness of the CF scheme (e.g. to improve productivity/ reduce unit production and transaction costs);
- an overview of the availability, accessibility, competences and capacity gaps of relevant non-financial and financial private and public service providers that may be engaged for CD.

Output

The capacity development and service needs assessment generates information necessary for drafting a contract farming (CF) service plan.

The CF service plan in turn feeds into the CF business plan to be developed at a later stage (cf. section 2.2.2). Depending on the individual case, the capacity development and service needs assessment also informs the selection of the CF business model (cf. section 2.2.1) and the realisation of CD measures as part of CF field operations (cf. section 2.3).

Tool Capacity development (CD) and service needs assessment

(Contributed by: Margret Will, 2015)

Stepwise approach for CF capacity needs assessment

Step 1 Define core capacities required for making the CF scheme operate efficiently;

Step 2 Categorise capacity needs of CF actors (people and their organisations; incl. relevant service providers);

Step 3 Assess existing capacities and likely commitment/ resistance of CF actors to adopt new skills;

Step 4 Identify the capacity gaps (difference between capacity requirements and existing capacities);

Step 5 Outline capacity development needs of different CF actors;

Step 6 Assess alternative solutions for developing the required capacities including cost implications (e.g. embedded services, external private/ public service providers, 3rd party facilitators providing technical assistance or probably subsidies);

Step 7 Develop a capacity development and service plan that is realistic with regard to time and resources required (cf. CF Handbook Volume I, Activity 2.3);

Step 8 Factor the costs for the capacity development programme into the CF business plan (cf. CF Handbook Volume I, Activity 3.4; CF Handbook Volume II, section 2.2.2).

Approaches

Steps 1, 8, 9 Brainstorming of company management and experienced staff;

Steps 2, 3, 4, 5, 6, 7, 8 Focus group discussions involving relevant CF actors;

Steps 1-9 Expert (external) consultations (if required);

Steps 6-8 Assessment of financial implications (see references below: IFAD, 2010 and RFLC website)

Templates for Steps 2 and 5 see below

Critical tasks in the CF scheme,
for which capacities need to be developed.
Not complete; to be adapted to the CF case.
(adapted from Action for Enterprise and Match
Makers Ltd., 2008, p.67ff)

Buyer management	Field staff (own or hired)	Lead (nucleus) farmers	Farmers	FBOs	Service providers (non-financial)	Service providers (financial)
------------------	----------------------------	------------------------	---------	------	-----------------------------------	-------------------------------

Decide whether to establish a CF							
Select appropriate CF business model							
Assess CF capacity and service needs							
Develop CF business plan							
Develop concept for CF field management							
Hire staff for CF field operations							
Supervise field management/ operations							
Monitor CF field operations/ results							
Organise regular management two-way feedback							
Other, namely							

Consider capacities of CF contract parties							
Factor in legal obligations							
Calculate effects of different pricing mechanisms							
Weigh effects of different terms on farmers/ buyer							
Identify mutually acceptable conflict resolution							
Consider existing experiences of success/ failure							
Negotiate CF contract							
Other, namely							

Select/ engage lead (nucleus) farmers							
Select/ engage farmer-based organisations/ FBOs							
Select/ engage farmers							
Communicate with/ monitor farmers							
Provide technical assistance to farmers							
Run demonstration/ trial plots							
Manage collection points and logistics							
Assure farmers' timely access to inputs							
Inform farmers on reasons for rejections							
Calculate payments to individual farmers							
Realise payments to individual farmers							
Other, namely							

Plan and manage production							
Implement harvest and post-harvest activities							
Coordinate procurement from farmers							
Organise collection and transport							
Grade produce/ document rejections							
Other, namely							

Develop farmers' business management skills							
Develop farmers' general technical skills							
Strengthen FBOs (leadership/ internal structures)							
Assist FBOs develop membership services							
Other, namely							

Template **Outline capacity development needs of CF actors (Step 5)**

Note: this template uses basic information generated in the preceding template “Categorise capacity needs of CF actors (Step 2)” (Contributed by: Margret Will, 2015)

CF actors (people and their organisations incl. services providers)	Critical tasks in the CF scheme (refer to the template “Categorise capacity needs of CF actors”)	Strengths to build on and to reinforce	Weaknesses to be reduced	Resulting capacity development needs
Farmers				
Farmer based organisations (FBOs)				
Lead (nucleus) farmers				
Field staff				

2/1

CF actors (people and their organisations incl. services providers)	Critical tasks in the CF scheme (refer to the template "Categorise capacity needs of CF actors")	Strengths to build on and to reinforce	Weaknesses to be reduced	Resulting capacity development needs
Buyer management				
Service providers (non-financial services)				
Service providers (financial services)				
Others...				
Others...				

Case example **Farmer Organisations Reviewing Capacities and Entrepreneurship (FORCE)** (Schrader (2010); largely verbatim citation)

FORCE is an effective self-assessment tool for quick mapping of how farmers perceive their farmer based organisation (FBO) and business relations (for a description of the tool cf. Schrader, 2010). FORCE can contribute to capacity development of farmers' organisations and to farmer-inclusive agribusiness value chain and contract farming development. The self-assessment tool is a methodological device that supports:

- FBOs to quickly assess how farmer members perceive their organisation;
- farmers to voice opinions within the FBO and to identify challenges themselves;
- farmers to get quick feedback and to be assured of easy uptake of the assessment results; and
- self-propelled organisational development processes and improved mutual understanding among FBO members, between farmers and their FBO as well as between farmers and their business partners and others.

Applying the tool takes two to three days per FBO (explaining the tool, scoring, entering and processing the data, preparing graphs and a basic debriefing report, sharing and discussing the results). The tool can easily be used by staff of farmer organisations or local capacity builders.

The self-assessment tool was tested with FBOs in the Coastal Province of Kenya engaged in contract farming with Equator Products Ltd., a processor and exporter of African Bird Eye chillies. The self-assessment identified need for action at two levels, namely:

Organisational development

- Internal structures and management: define member adherence conditions and their rights and duties; improve on quality and transparency of operational planning, budgeting and financial management; strengthen internal communication and accountability; establish a lean monitoring and evaluation system;
- Capacity development: organise training of board members; support professionalization of facilitators;
- External relations: collaborate with banks; collaborate with providers of inputs (seeds, fertilisers, chemicals); develop relations with local government as well as with research and education.

Contract farming relations

- Support access to key services and inputs: facilitate access to inputs and bank loans; support access to technical advice (e.g. to reduce production unit costs, adapt to climate change, set up 1st stage drying of chillies); build entrepreneurial capacities (for gross margin/ cost-benefit analysis; analysis of optimal acreage according to farming/ household systems);
- Contract issues: adapt and clarify price setting mechanisms, premiums, payment modalities and other contract specifications; review the buyer's payments for services of FBOs and facilitators; improve on anticipation of issues related to conflict resolution;
- Communication: ensure communication on CF arrangements to individual members (not only board members); improve the farmer-firm 'bridge function' of facilitators;
- Contract farming field management: improve the management of collection points.

Case example Using Farmer Business Schools for building farmers' capacities in entrepreneurship and contract farming

(Contributed by: Christopher Masara, 2015)

In Zimbabwe, the GIZ Food Security & Agriculture Project (AISP III) is implementing a capacity development programme for public and private service providers in agricultural extension. Companies contracting small-scale farmers, public extension services and the Zimbabwe National Farmers Union (ZNFU) are the main implementing partners. The objective is, among others, to improve smallholder farmers' performance in production and marketing through innovative and sustainable business models such as contract farming. To this end, AISP uses two complementary approaches and materials, namely the Farmer Business School (FBS) methodology, for which the original manual was developed by the GIZ Cocoa Programme in West Africa, and the GIZ Contract Farming Handbook, which was developed by several GIZ programmes, among others AISP. The two manuals and training courses have been adapted and contextualised to the Zimbabwean environment.

The FBS approach aims at facilitating the transformation of small-scale farming from subsistence to business orientation with the objective to enable smallholders to embrace a commercial farming business culture informed by market conditions. Besides entrepreneurship and farm management concepts, the manual also develops on agricultural financing, marketing and pricing. It hence builds capacities for business negotiations and provides tools for example for gross margin and cash flow analysis. To date, AISP has trained more than 1,000 extension staff from six districts in FBS. Using a simple

evaluation tool for comparing pre and post training competence levels shows significant increases in skills and knowledge of extension staff.

The FBS manual also introduces the contract farming (CF) concept as an alternative option to address challenges of access to input and output markets as well as financial services. Whilst the FBS approach will be rolled out to all smallholder farmers in Zimbabwe, training in Contract Farming focuses on selected farmers who are either practising or have potential to actively participate in CF. Having been adapted to the conditions in Zimbabwe, the manual relates to main stumbling blocks in existing schemes such as the roles of farmer groups as a vehicle for successful CF management, design of appropriate CF business models for integrating smallholder farmers, formulation and negotiation of contracts, and conflict mitigation and resolution in CF to mention a few.

Smallholder farmers in Zimbabwe are motivated to learn new ways of doing business in order to improve their livelihoods. AISP III has breathed a new life in the learning process for vulnerable smallholder farmers through the use of the two adapted and contextualised manuals. These manuals are designed to systematically improve farmers' knowledge and skills, and will help in transforming farms from subsistence into innovative and commercially oriented farming business entities that can competently participate in contract farming.

References

- Action for Enterprise and Match Makers Ltd. (2008): Facilitating the Development of Outgrowing Operations: A Manual; prepared for USAID; produced under: The FIELD-Support LWA; p.21ff, p.67ff; available online at: <http://www.actionforenterprise.org/paper-usaid.pdf>
- Dawes, M.A., R. Murota, R. Jera, C. Masara and P. Sola (2007): Inventory of smallholder contract farming practices in Zimbabwe; Support Capacity for Enhanced Market Access and Knowledge Management (SCAPEMA); SNV Netherlands; p. 18ff; available online at: http://www.snvworld.org/sites/www.snvworld.org/files/publications/inventory_of_smallholder_contract_farming_practices_in_zimbabwe.pdf
- Gerster-Bentaya, M. and V. Hoffmann (2009): Rural Extension – Volume 3: Training Concepts and Tools; Margraf Publishers GmbH Germany; ISBN 978-3-8236-1573-6
- Hoffmann, V., A. Christinck and M. Lemma (2009): Rural Extension – Volume 2: Examples and Background Material; Margraf Publishers GmbH Germany; ISBN 978-3-8236-1572-9
- Hoffmann, V., M. Gerster-Bentaya, A. Christinck and M. Lemma (2009): Rural Extension – Volume 1: Basic Issues and Concepts; Margraf Publishers GmbH Germany; ISBN 978-3-8236-1571-2
- IFAD [International Fund for Agricultural Development] (2010): IFAD Decision Tools for Rural Finance; Rome, Italy; available online at: <http://www.ifad.org/ruralfinance/dt/index.htm>
- MDF (n.d.): Training Needs Assessment (TNA); available online at: <http://www.toolkitsportdevelopment.org/html/resources/B3/B3375796-DDDF-42AE-AF44-519B2D7A94DD/12%20Training%20Needs%20Assessment.pdf>
- RFLC [Rural Finance Learning Centre] website: Library, training, events, multimedia; FAO; available online at: <http://www.ruralfinance.org/>
- Schrader, T. (2010): Engaging with farmers as entrepreneurs and partners: experiences with a self-assessment tool for farmers' organisations (FORCE); Wageningen UR; available online at: edepot.wur.nl/232555
- Shepherd, Andrew (2007): Approaches to linking producers to markets: A review of experiences to date; FAO Agricultural Management, Marketing and Finance Occasional Paper 13; p.57f; available online at: <ftp://ftp.fao.org/docrep/fao/010/a1123e/a1123e00.pdf>
- Will, Margret, Lambertus Vogelzang, Miriam Wanyonyi and Heike Hoeffler (2008): Capacity Development Concept for Value Chain Development; Private Sector Development in Agriculture/ GTZ; Kenya; available online at: <http://www.valuelinks.org/images/stories/pdf/vcd/PSDA%20Kenya2008CapDevConceptForVCD.pdf>

2.2/ Tools for contract farming planning

Contract farming requires well thought-out planning. Tying large numbers of smallholders (even if organised in farmer organisations) with one buyer, the design and management of such a joint business is a real challenge. Sound planning is supposed to provide the footing for reasonable return on investments for farmers and buyer as well as for fair and equitable sharing of risks. Due care has to be exercised on screening alternative CF arrangements, selecting an appropriate CF business model, outlining pertinent contract details and drafting a realistic and realisable CF business plan.

Considering that **trust is key for the sustainability of business relationships**, the CF design has to factor in relevant concepts. Trust accrues from ownership, voice, risk and reward (Vermeulen and Cotula, 2010, p.5), involving the following success factors (cf. GIZ Handbook Volume I, p.27):

- economic viability and incentives with an equitable cost-benefit-‘plus’ for suppliers and buyers;
- fair give-and-take relations based on scope of negotiation for farmers;
- shared ownership and risks according to the quite divergent capabilities of both sides;
- technology transfer and innovation to stimulate increased farm productivity and chain efficiency;
- sound analysis and planning as precondition for the design of viable CF schemes.

Tools for contract farming planning described in this chapter:

- 2.2.1 Contract farming business model
- 2.2.2 Contract farming business plan
- 2.2.3 Gender aspects in contract farming
- 2.2.4 Pricing mechanisms in contracts
- 2.2.5 Contract negotiations

2.2.1/ Contract farming business model

For purpose and selected questions cf. CF Handbook Volume I, p.52, 67f and in particular p. 69f

cf. CF Handbook Volume II, section 4 Contract farming case writing

Purpose

Serving the planning of new and the reengineering of existing CF schemes, the purpose of this tool is to assist practitioners:

- to screen alternative CF arrangements (informal, intermediary, multipartite, centralised, nucleus estate model or an intermediate model between the five basic CF models) regarding practicability under local conditions;
- to identify the most appropriate CF business model for the given internal situation (buyers' and farmers' incentives, attitudes and capacities) and the external setting (markets, support services, framework conditions, facilitators);
- to outline the CF business model in detail.

Output

Outline of a CF business model that is appropriate for the given situation. The CF business model serves as basis for:

- developing a CF business plan (cf. section 2.2.2);
- deciding on/ negotiating CF contract specifications (cf. section 2.2.4 and 2.2.5); and
- developing approaches for CF management (cf. section 2.3).

Tool CF business model canvas

See also section 2.1.4 "Farm and firm business model analysis"

(adapted from: Osterwalder and Pigneur, 2010 and Lundy et.al., 2012)

To serve the specific needs of CF schemes as a joint undertaking at the farm supply – firm procurement interface, the business model canvas proposed by Osterwalder and Pigneur (2010) had to be adapted. In contrast to the business model canvas for individual farms (farming systems) and firms (cf. section 2.1.4), the 'market side' of the CF business model canvas features as follows

(see graph on page 60):

- instead of 'customers' the CF business model canvas describes 'CF market requirements';
- instead of 'customer relationships' the CF business model canvas describes 'CF supplier-buyer relationship';
- instead of 'channels' the CF business model canvas describes 'CF infrastructure/ logistics'.

The CF business model canvas will be filled in using pin boards and moderation cards (if pin boards are not available, moderation cards can also be laid out on the floor or on a table of sufficient size).

For filling in the CF business model canvas, the partners in the CF business model need to ana-

lyse their current (or planned) situation as to the nine building blocks. Given the simple yet comprehensive structure of the CF business model canvas, users should not face major problems in completing it for existing schemes. It will be more difficult to complete it for a newly planned CF scheme, especially regarding prospective costs and revenues.

Recommendations

When estimating the cost-benefit, return on investment and the expected point of break-even it is recommended to make conservative estimates in order:

- not to raise wrong hopes regarding expected profits;
- not to risk over-indebtedness following investments into business model upgrading; and
- not to risk a consequential early breakdown of the improved business model.

The following figure provides descriptions of the nine building blocks of the CF business model canvas.

Contract farming (CF) Business Model Canvas (farm supply - firm procurement interface)

(adapted by the author from: Lundy et al., 2012, p. 40ff, adapted from: Osterwalder and Pigneur, 2010; largely verbatim citation)



References

- Osterwalder, A. and Y. Pigneur (2010): Business Model Generation – A Handbook for Visionaries, Game Changers, and Challengers; only preview (2009) available online at: http://www.businessmodelgeneration.com/downloads/businessmodelgeneration_preview.pdf
- Lundy, Mark, Gertjan Bex, Nancy Zamierowski, Alexandra Amrein, Jhon Jairo Hurtado, Erika Eliana Mosquera, Fernando Rodríguez (2012): LINK methodology: A participatory guide to business models that link small

holders to markets; International Center for Tropical Agriculture (CIAT), Cali, Colombia; available online at: http://dapa.ciat.cgiar.org/wp-content/uploads/big-files/2012/LINK_Methodology.pdf

* Key conditions for successful contract farming according to Vermeulen and Cotula (2010)

Case example Contract farming business model canvas

For more examples cf. section 5.1

CF Business Model Canvas – Northern Farming (NF), Zimbabwe (Contributed by: Andrew Mbetsa, 2015)



2.2.2/ Contract farming business plan

For purpose and selected questions cf. CF Handbook Volume I, p.80f

Purpose

The CF business plan describes the strategic objectives as well as the operational and financial means for the development of a CF venture as joint undertaking of farmers and a buyer.

Guidance by a well thought-out business plan is especially important for a complex undertaking like contract farming, in which the intricate management of the farm supply – firm procurement interface presents a real challenge.

Output

A CF business plan providing an assessment of the feasibility of a planned CF scheme and a roadmap for CF scheme development.

The CF business plan is a management instrument providing facts and figures for:

- strategic decision-making for CF start-up, consolidation and scaling up;
- monitoring of CF business results;
- financial management; and
- applications for credits or 3rd party technical or financial support.

Introduction Contract farming business plan

(Contributed by: Margret Will, 2015)

Rationale for developing a CF business plan

For starting up and sustaining a CF scheme, a comprehensive business plan is required providing a thorough understanding of the existing or proposed joint undertaking, the goals and objectives of the partners in the CF business, the financing requirements and the financing options. The business plan will usually be developed by the buyer, at least when he is the initiator of the CF scheme. However, it is recommended to at least partly involve business partners in CF business planning. Sharing relevant information and facilitating participation in decision-making (, e.g. with representatives of farmer groups) contributes to transparency, which in turn is a basic condition for building trust between business partners.

When drafting a CF business plan, the following has to be considered:

- to envisage a realistic growth path and make a guesstimate of the maximum size, at which the scheme is still manageable and cost-benefit-wise competitive with other supply solutions;
- to consider that CF schemes hardly can achieve break-even in the first year (experience shows that break-even will only be realised after three to five or even more years; see explanations below); and
- to bear in mind that transaction costs of CF may be high e.g. due to (i) costs of drafting, negotiating and enforcing contracts; (ii) maladaptation

costs when contract specifications are not met; (iii) set-up and running costs; and (iv) bonding costs for developing reliable business relations and securing commitments (for details see: Simmons, n.d., p.6f).

CF business planning needs to consider that reaching break-even may take years

One precondition for developing successful, i.e. remunerative and sustainable CF schemes is to be realistic about the time and resources it takes to reach break-even. Integrating large numbers of farmers necessary for reaching the required scale of operations, building capacities for making CF remunerative for small-scale farmers through increased productivity and improved quality needs time and investments. Furthermore, strengthening FBOs to efficiently and effectively serve their members and last but not least developing trust between farmers and buyers as partners in business needs years.

The development path of schemes can be shortened and risk of failure reduced if CF development is based on sound analysis, appropriate CF business model design and realistic CF business planning. Given the extensive need for investments into capacity development of small-scale farmers and for CF infrastructure, support by 3rd parties may as well contribute to shorten the period for reaching break-even (cf. section 3).

Tool Contract farming business plan

(adapted from: Business Partners Ltd. (n.d.); partly verbatim citation)

The following provides a guide to writing a CF business plan. Circumstances vary and users will need to tailor the business plan depending on the type of business, the buyer-supplier relations, the framework conditions and the potential contributions of external partners. But, the basics remain the same.

Every business plan should comprise the following sections (according to Business Partners Ltd.; for other examples see references below):

- Cover page
- Executive summary
- CF business overview (CF business model and product)
- CF management (business partners and management structure)
- CF market (industry and market analysis)
- CF sales and marketing strategy
- CF financial statements and projections
- Legal and regulatory environment
- CF SWOT analysis and risk/ reward assessment
- Appendices and supporting documentation

Executive Summary

The executive summary is the most vital part of the business plan since it has to sell the strategy to the business partners/ potential investors and probably to external financial service providers. The summary is an overview of the entire plan and must contain the highlights and summaries of each section. Although at the beginning of the document, the summary should be written last to capture the essence of the plan. The summary stands alone and should not refer to other parts of the document.

CF business overview (cf. section 2.2.1)

1. CF business model
 - Information on the background and history of the CF;
 - Indication of the CF business model;
 - Description of the mission, short and long-term objectives in terms of CF business growth and development; etc.
2. CF product (value proposition)
 - Description of the product offered and the competitive edge over rivals in the market;
 - Indication of the expected product life cycle where applicable;
 - Description of key technologies used, current and future research and development.

3. Location, premises and - where applicable - production facilities

4. Production and technology

- Description of production processes and capacity, including constraints and possible problems;
- Description of the process for installing new technologies and production processes;
- Information on quality standards, quality assurance systems and certification if applicable;
- Description of suppliers and sub-contractors; and contractual arrangements governing the supply of key inputs.

5. CF business model strengths, weaknesses, opportunities and threats and critical success factors.

CF management

1. Farms and firm (buyer) as partners in business
 - Description of the skills and experiences covering production, management, marketing, finance and administration;
 - Description of the position and the specific functions/ responsibilities of each CF business partner and/ or manager;
 - Indication of the contributions (financial or in-kind) of each CF business partner and the CF shareholding structure.
2. The management structure of the CF business
 - Outline of the CF ownership structure, business units and subsidiaries (e.g. collection centres) where applicable;
 - Outline of an organisation chart showing the functions and responsibilities of suppliers, buyers, key staff;
 - Indication of remuneration, incentives, share options and conditions of contracting/ employment of key staff;
 - Information on growth rates in contracted farmers over time, contract relations and farmer group development;
 - Description of the management information and control system: communication, supervision, monitoring;
 - Indication of further partners (e.g. extension, arbitrators, bankers, professional advisers, 3rd party supporters).

CF market**1. Industry analysis**

- Current trends and developments in the industry (local, regional, global target markets, competitors);
- Problems the industry might be experiencing (e.g. volatile local markets, global financial crisis).

2. Market analysis

- Description of the existing market and its potential for growth (size and maturity of the market, trends and seasonality, CF's current and expected market share, time, resources and actions required to achieve the desired market share);
- Inventory of existing and potential customers (including a detailed analysis of competitors, prices and quality of their products, services and delivery, and their expected reaction to the CF);
- Assessment of the CF's competitive advantage.

CF sales and marketing strategy

- Description of current and planned sales and marketing strategies and promotional activities;
- Description of the distribution strategy and channels;
- Indication of sales staffing, recruitment, remuneration and commission structures;
- Analysis of the lead time expected to reach sales targets and milestones (e.g. break-even point);
- Elaboration of the pricing strategy and how it compares with those of competitors.

CF financial statements and projections

- Summary of the financial statements and projections (detailed analysis as an appendix);
- Operating budgets, cash flow projections and pro-forma balance sheets for five years (at least three years);
- Monthly projected figures for the first two years, quarterly figures for years three/ four, annual projections thereafter.

Where applicable, provide:

- Historical financial performance of CF or buyer;
- Costing methodology employed, or to be employed;
- Pricing policies giving a full analysis of theoretical and actual mark up and gross profit percentages by CF partners;
- Rebates, discount structures and terms offered to and received from suppliers and customers respectively;

- Break-even and sensitivity analysis;
- Overdraft and factoring facilities (bank, limit, security and interest rate) and medium and long term loans;
- Capital requirements.

CF legal and regulatory environment, e.g.

- Licences, copyrights, trademarks and patents;
- Regulations governing the industry (e.g. company and contract laws; quality, social and environmental standards);
- Legislation specific to CF (e.g. concession areas and registration requirements);
- Proof of compliance with tax and labour legislation;
- Duties and tariffs to which inputs or products are subject if the business is a regular importer or exporter.

CF SWOT analysis and risk/ reward assessment

- Assessment of definite and possible strengths, weaknesses, opportunities and threats (SWOT);
- Assessment of risks faced by the CF in relation to the potential for growth, profitability and capital appreciation;
- Strategies, instruments and related costs for mitigating/ managing risks (cf. section 2.3.2).

Appendices and Supporting Documentation

The following supporting documentation, inter alia, should be included where applicable:

- Product brochures, market research, trade and industry publications;
- Contract, partnership, association or shareholder agreements;
- Offers to purchase, purchase and/ or sale agreements, contracts, orders, letters of intent;
- Documentation relating to licences, copyrights, trademarks and patents;
- Quotations or pro-forma invoices for capital items to be purchased;
- Balance sheets of CF business partners (buyer);
- Copies of company certificates and registration documents;
- Organisation chart, CF business model canvas, work flow charts, plans, factory layouts, maps, etc.;

A list of persons to whom reference can be made regarding creditworthiness, product and service quality, and the skills, abilities and integrity of CF business partners.

Sample CF business plan

Just one CF business plan was found on the internet (Mehta et.al., n.d.; Harvard Business School winner of New Venture Competition). The paper gives a good idea on the structure and contents of a business plan for a start-up CF scheme. However, according to the company's Blog, the CF scheme is struggling to get started. It seems as if the business plan was too ambitious having regard to the technical and managerial capacities required for starting and operating a CF scheme.

References

- American Express Company (n.d.): Open Small Business Network: Business Plan Template; available online at: <http://www.smetoolkit.org/smetoolkit/en>
- Bernet, Thomas, Graham Thiele and Thomas Zschecke (2006): Participatory Market Chain Approach (PMCA) - Usre Guide; International Potato Center (CIP) - Papa Andina, Lima, Peru; available online at: <http://cipotato.org/wp-content/uploads/2014/09/003296.pdf>; p.101
- Business Partners Ltd. (n.d.): SME Toolkit – Business Plans; SME Toolkit South Africa website at: <http://southafrica.smetoolkit.org/sa/en/category/2944/Business-Plans>
- Business Partners Ltd. (n.d.): SME Toolkit – Writing a Business Plan; SME Toolkit South Africa website at: <http://southafrica.smetoolkit.org/sa/en/content/en/3295/Writing-a-business-plan>
- Davies, Mark (2009): Mixed-use Incubator Handbook: A Start-up Guide for Incubator Developers; commissioned by the Information for Development Program (infoDev) and the World Bank Group; available online at: <http://www.infodev.org/articles/mixed-use-incubator-handbook>
- Lawrence, Stephen and Frank Moyes (2004): Writing a Successful Business Plan; Deming Center for Entrepreneurship; Leeds School of Business; University of Colorado at Boulder; available online at: <http://leeds-faculty.colorado.edu/moyes/bplan/Plan/Writing%20a%20Successful%20Business%20Plan%202004v4.pdf>
- Mehta, Mira et.al. (n.d.): Tomato Jos Business Plan; available online at: http://www.hbs.edu/newventurecompetition/Documents/SE-TrackToTomatoJos_BusPlan.pdf
- Republic of South Africa (2011): Agricultural Business Plan Guidelines; available online at: [http://www.daff.gov.za/daaDev/AgricDevFinance/BusinessPlanGuidelines\(VIS\).pdf](http://www.daff.gov.za/daaDev/AgricDevFinance/BusinessPlanGuidelines(VIS).pdf)
- Simmons, Phil (n.d.): Overview of Smallholder Contract Farming in Developing Countries; University of New England, Armidale, Australia; available online at: <http://www.fao.org/docrep/007/ae023e/ae023e00.HTM>

2.2.3/ Gender aspects in contract farming

For purpose cf. CF Handbook Volume I, p.13 and 46 (only French version)

Purpose

If gender roles are well understood, and if contract agreements and capacity development measures are gendered, inclusion of and equal opportunities for female farmers and workers in CF can contribute to increasing the performance and viability of the conjoint CF business.

The purpose of this tool is to facilitate the participation of female farmers and workers in CF by providing guidance for:

- identifying roles, resources and work load of men and women in smallholder farming and households (including often hidden tasks in farming, processing and marketing);
- assessing potential effects of contract farming on roles, resources and work load of female farmers and workers;
- assessing the cost-benefit of inclusion of female farmers in CF arrangements;
- assessing unintended negative effects of inappropriate ways of inclusion or exclusion;
- identifying specific capacity development needs of female farmers and workers.

Note:

- In many countries, women play a major role in downstream stages of value chains both as micro or small-scale entrepreneurs and workers (e.g. collection of medicinal plants and herbs and other non-timber forest products, cottage-level processing of own farm produce or purchased raw materials, marketing in wet markets and street food vending).
- Equal inclusion into the farming part of the CF may therefore involve higher workload for women and compromise their other income-generating activities. Consequently, sound analysis of the situation on the ground and assessment of roles and responsibilities and workload not only at the farm stage but also at the downstream stages of the value chain are a must.
- Knowledge and skills of women in downstream income-generating activities may at the same time offer opportunities for inclusion into the CF schemes where 1st stage processing could be outsourced to village-level female micro or small-scale entrepreneurs (e.g. cleaning, grading, drying, packaging).

Output

Guidance for inclusion of female farmers and workers into CF arrangements.

Introduction Gender aspects in contract farming

(Contributed by: Margret Will, 2015)

Although supplying much of the work force under contract farming arrangements, women are largely excluded from signing contracts themselves since most female farmers lack control over land and labour, they lack access to financial and other resources as well as to adequate information and advice. However, with women playing a crucial role as farmers, family workforce and labourers in agriculture in many developing countries, promoting gender equality in CF may not only prove to be good for women but also for the performance of contract farming schemes.

Note:

Gender roles are based on the attitudes that social groups and societies have towards the division of rights, responsibilities and tasks between men and women, boys and girls. Roles of women in farming and agribusiness hence depend on cultural traits and social patterns that are characteristic for certain geographical areas. Given that gender attitudes vary considerably from one region to the other and even within countries from one location to the other, the integration of women into CF requires location-specific solutions.

“Women constitute half of the agricultural work-force in the world’s least developed countries and produce more than half of the world’s food but are 20 to 30 percent less productive than men¹⁰. Women tend to have lower productivity than

men because they have limited access to productive resources, including land, financing, inputs, and technology. By addressing their constraints, agribusinesses can tap an underutilized source of supply.” (IFC, 2013, p.102)

(International Finance Corporation (IFC), 2013, p.102 ; verbatim citation)

The role of women in smallholder agriculture

(International Finance Corporation (IFC), 2013, p.102 ; verbatim citation)

Land	Men are usually the formal landowners in both traditional and modern land tenure systems, even when women contribute significantly to agricultural production. For example, less than 2 percent of African women have ownership rights to their land. Lack of official landownership reduces women’s ability to access finance and other resources.
Supply chain linkages	Women are underrepresented in membership and governance of established producer organizations from which agribusinesses source. They are also less likely to participate in sustainability certification schemes. Fewer women are contract farmers or outgrowers. In addition to being excluded from the income of crop sales, women do not have access to services, such as training, financing, and provision of inputs, that are provided by off-takers.
Training	Just 5 percent of participants in extension services and capacity-building programs are women. This means that the off-takers may provide training and inputs to a person in the household who is not necessarily responsible for the associated task. Poor transfer of agricultural knowledge within households reduces the likelihood that the information and inputs are shared with those actually doing the work.
Finance	Women have less access to finance as a result of lower educational levels, cultural restrictions, and collateral requirements.
Technology	Women tend to use technology less than men, in part because of perceptions that women’s labor is less onerous or important than that of men.
Attitudes toward risk	Because of their limited access to resources and greater household responsibilities, women tend to be more risk conscious than men.
Limited household decision making	Limited land ownership is one reason that women often contribute much of the work but have less control over the income received from crop sales. In other cases, women may not identify themselves as farmers even though they have access to farm lands, co-decide with their husband what inputs to use on that land, hold the household income, and decide where to apply household finances.
Time	Requirements on women’s time at home reduce their ability to participate in training or sourcing programs. Women visit demonstration plots and attend extension services less frequently than men, but the gender gap narrows when extension services are offered at home.
Mobility	Restrictions on women’s social networks reduce their ability to develop vertical and horizontal value chain linkages.






.....
 10 Cheryl Doss and the SOFA team (2011): The Role of Women in Agriculture; Food and Agriculture Organization; ESA Working Paper No. 11-02, March 2011

To make CF inclusive for female farmers and to integrate female workers into CF arrangements requires appropriate approaches since their situation differs from those of men. Besides limited access to resources, women usually assume additional responsibilities like caring for children and working for additional off-farm income required in many families to assure household food security. These obligations keep them busy during the day leaving only evening hours and weekends for farm work.

This special situation has to be considered when signing contracts with women and developing capacity development programmes for female farmers and labourers. Even if the language in the handbook is not gendered throughout, the following gender mapping and template "Gender aspects in contract farming" provide ideas for promoting the participation of women and for considering special needs of female business partners in CF arrangements.

Gender mapping along the value chain generates a better understanding of women's roles in supply chains

(International Finance Corporation (IFC), 2013, p.105; verbatim citation)

 Farm Resources	 Labor Resources	 Production	 Post Harvest	 Marketing
<p>What are the differences between men's and women's access to and control over:</p> <ul style="list-style-type: none"> • Formal and informal title to land • Use of fertilizers, technology • Household income (including non-agricultural income), budget, and financial products • Membership in a producer organization 	<ul style="list-style-type: none"> • What additional responsibilities do men and women have outside agricultural production? • How do men's and women's learning preferences differ (timing, language, location)? 	<ul style="list-style-type: none"> • In which areas of production does one gender lead or does 80 percent of the labor (for example, field labor, cleaning, farm repairs)? • Do women and men work separately or on the same plots of land? • Do women and men typically grow the same crops and/ or sell to the same markets? 	<ul style="list-style-type: none"> • In which aspects of post-harvest processing does one gender lead or does 80 percent of the labor? • Do the information sources women use to learn about post-harvest techniques differ from the sources used by men? 	<ul style="list-style-type: none"> • Do men and women assume different roles in product marketing? • Are there women collectors or intermediaries in the supply chain? • What social limitations exist that might limit the sphere in which men and women market their products?

Template Gender aspects in contract farming

(Contributed by: Margret Wül, 2015)

Gender roles:		Likely benefits/ problems of female... ¹¹		Opportunities for female inclusion	Constraints to female inclusion ¹²	Strategies to encourage female participation ¹³
Women	Men	inclusion	exclusion			
Access and control over resources: land, labour, capital, skills, traditions and attitudes, other						
Power to negotiate/ decide on: land use, land renting, CF contracts, traditions and attitudes, other						

.....

¹¹ For examples cf. Norell and Brand, 2013a, Field Guide, p.89ff; <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>

.....

¹² e.g. time available, skills, attitudes and social pressure

.....

¹³ For examples cf. Norell and Brand, 2013b, Field Guide, p.94ff; <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>

Gender roles:		Likely benefits/ problems of female... ¹⁴		Opportunities for female inclusion	Constraints to female inclusion ¹⁵	Strategies to encourage female participation ¹⁶
Women	Men	inclusion	exclusion			
Workload (identify also hidden/ unpaid tasks!): household, child care, firewood, field work, harvesting, collection, processing, marketing, other						
Scope for collective action: existing women groups, willingness to work in groups, leadership capacities, peer learning capacities, other						
Control over benefits accruing from participation in CF: additional cash income, use of inputs for cash crops/ subsistence, use of credits/ loans, training participation, other						

.....

14 For examples cf. Norell and Brand, 2013a, Field Guide, p.89ff; <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>

.....

15 e.g. time available, skills, attitudes and social pressure

.....

16 For examples cf. Norell and Brand, 2013b, Field Guide, p.94ff; <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>

Tool Strategies to encourage participation by women

Promoting the participation of women

(Norell and Brand, 2013a, p.94ff and 2013b, p.30ff)

Norell and Brand give guidance for developing strategies that encourage the participation of women in value chains, which can as well be used for integrating women into contract farming schemes. The authors have structured the guidelines according to the following topics:

- Reducing the cultural barriers to women's participation;
- Building women's skills, confidence and social capital;
- Addressing the lack of access to assets by women;
- Addressing the lack of ownership and control of assets by women;
- Addressing time and mobility realities;
- Designing logistics of participation around women's circumstances and needs;
- Encouraging membership and leadership criteria that allow women's participation in farmer groups.

Supporting women in male-dominated chains

(KIT, Agri-ProFocus and IIRR, 2012, p.116 ; verbatim citation)

Entry point:

To position women better in male-dominated chains: make sure that they are visible and have economic decision-making power.

Why do it?

Women already do much of the work in many male-dominated value chains. By making their contributions explicit, women gain opportunities and are able to improve their abilities and practices. That in turn allows both socio-economic emancipation of these women and improvements in chain activities. When more actors are economically viable and are able to improve their business in the chain, a chain becomes more robust. The involvement of women adds a new dynamic and diversity to the organizations and businesses affected.

How to do it?

We distinguish several types of interventions to support women working in male-dominated value chains. These interventions often reinforce one another:

- Recognize the contributions of women in a value chain. A value chain analysis can aid discussion about the participation, or possible future participation, of women with all stakeholders, and make that participation visible.
- Sensitize men, women, communities, governments, companies, etc. and facilitate joint efforts among these actors.
- Involve women in cooperatives or producer groups and build women's capacities in business, literacy, technology, leadership, finance, etc.
- Introduce new services and technologies that are women-friendly to upgrade chain activities.

When is it a good strategy?

The approach is particularly suitable:

- When land ownership is not affected and when high-value inputs or other barriers that might constrain women are not required.
- Where activities can easily be done by women (one case in this section talks about women's "dislike" of climbing trees), and that do not increase the overall work burden, bearing in mind women's many other responsibilities.

Conditions for success

- Making women's contributions to the chain visible, and building women's confidence for joint decision-making on chain activities and spending.
- Changing laws, rules, statutes, etc. to allow women to take up certain positions in a value chain or cooperative. In some cases this may include land ownership.
- Sensitizing men and communities on the benefits of women's participation and the risks of excluding them.

Case examples **Gender aspects in contract farming**

Gender and modern supply chains in developing countries I

(Maertens and Swinnen, 2009, p.12f; verbatim citation)

Although there are some examples of successful integration of women ... in contract-farming schemes, most of the scarce amount of available studies indicate that female farmers are largely excluded from high-value contract-farming. For example, Dolan (2001) observes less than 10% of female farmers in smallholder contract farming schemes in the Kenyan fresh fruit and vegetable export sector and Eaton and Shepherd (2001) find that in large ... schemes involving many thousands of farmers in China contracts were exclusively with men. Also, Porter and Philips-Horward (1997) report that in sugar contract schemes in South Africa the majority of contractors are men.

The reasons mentioned for this exclusion of female contractors ... relate to their limited access to productive resources ... such as land, capital and credit, and in the access to information and technology (Temu, 2005). The preference of food companies to contract with men is driven by companies' need to secure access to land and labour for a guaranteed supply of primary produce (Dolan, 2001). Women are excluded because ... they have less authority over family labour compared to their husband and male siblings. In the case of vegetable supply chains in Senegal women also lack claims to irrigation water and infrastructure – a crucial input for French bean contract farming ... – which further disadvantages them in contracting with the export industry.

Gender and modern supply chains in developing countries II

(ibid., p.24f; verbatim citation)

Important insights from our analysis is that women benefit more and more directly from large-scale estate production and agro-industrial processing, and the creation of employment in these modern agro-industries than from high-value smallholder contract farming. ... this finding suggests that modern supply chains can be more effective in assuring that the benefits from

high-value production and trade are more equally shared ... [through] hired labour rather than [through] smallholder contract farming and family labour. Nevertheless it is mainly smallholder contract farming that has been promoted in policy attempts to assure an equitable distribution of the gains from high-value agricultural trade and of the rents in modern food supply chains. If one is serious about the development of high-value agricultural trade as a strategy for poverty alleviation and inequality reduction, there is a need for integrating insights on labour market effects of modern supply chains, including gender aspects...

Increasing opportunities for women in outgrower groups

(Oxfam, 2012, p.16; verbatim citation)

The FRICH (Food Retail Industry Challenge Fund) project is supporting tea company Finlay's outgrowers in Kenya to set up five new cooperatives. To ensure that female as well as male outgrowers can join the cooperatives in their own name, the project bases membership eligibility on the grower having been assigned land where they have control over the produce: formal land titles are not necessary (which is important as most African women do not own land). Moreover, as women producers are often registered under their husbands' names even when the husband is not involved in farming, the project insists that, in such cases, the woman must be registered as the member. Finally, to ensure that women (and youth) are represented in the cooperatives' governance structures, quotas have been established at the various management levels: for example, each buying centre must elect one older man, one older woman, one young man, and one young woman to form its committee.

Integrating women in contract farming schemes

(KIT, Agri-ProFocus and IIRR, 2012, p.267f)

Unilever has supported the establishment of Novella Development Tanzania Limited, a public-private initiative, to mobilize and sustain the Allanblackia seeds supply. The seeds are collected and sold in the off-season, when farmers have few other sources of income.

Women in Muheza work with their husbands on the family farm, but as in many other places, they do not own the land, and it is the men who sell the harvest and decide how the money should be spent. Allanblackia is a welcome source of independent income for the women: they can collect the seeds in the forest, so do not need to ask anyone's permission.

Faida MaLi is a non-profit organization that ... facilitates the process from production until the collection centres, where the producer groups sell the seeds. It organizes the farmers into groups and trains them on business skills, contract farming, price negotiation and production. Unilever, Novella, Faida MaLi and Cordaid/Hivos (which fund part of the initiative) have signed a memorandum of understanding that outlines their roles and responsibilities in the chain. This specifies that gender, child labour and environmental aspects be considered as part of the project.

The approach aims to ensure equal outcomes for men and women. At least half the participants in training must be women. Women are included in contract negotiations where high-level decisions are made. In producers' organizations, women must make up at least 40% of the members and 42% of the board. That ensures that women now jointly negotiate prices, identify the location of seed collection centres, and oversee quality control. The task of the organizations' leaders is to manage the collection centres, control seed quality, and manage cash payments to farmers on behalf of Novella. Clerks inspect seeds quality, weigh the sacks of seed, keep records and pay farmers accordingly. Most of the clerks and farmers' leaders at the centres are women.

With better negotiation skills, the producer groups can negotiate better prices. The price of Allanblackia has increased by 400% from TSh 60 (five US cents) a kilogram in 2004 to TSh 300 (\$ 0.24) in 2010. Farmers in Muheza have collected and sold over 1,500 tons of seeds valued at \$ 228,000. Women have earned 46% of this total. There are now 60 producer groups with over

3,000 farmers; 43% of their members are women. The proportion of women started out at 53% but has sunk gradually as men realized that collecting Allanblackia was an attractive enterprise. Because of the requirement women must make up at least 40% of the group members, they are still well represented.

Poverty and gender effects of smallholder organic contract farming

(Bolwig, 2012; verbatim citation)

Rising demand both for organic tropical products and for year-round supply of some organic temperate products has encouraged organic activists and some donors to promote certified organic export production in a number of tropical African countries, including Uganda.

The objectives of this study were, first, to examine the impacts of certified organic contract farming on the food security of the smallholder farm households participating in such arrangements, and second, to assess the role of gender relations in these dynamics. In particular, the study considered how the costs and benefits of participation are distributed among men and women. In order to meet these objectives, two predominantly qualitative Ugandan case studies were used: the organic pineapple and the organic coffee smallholder contract farming schemes.

The study found that establishment of these two export-oriented certified organic contract farming schemes did not reduce household food security for scheme participants. Rather, it improved food security as higher revenues from certified organic crops enhanced households' capacity to access food through the market. Gender relations were a critical factor for these welfare outcomes, and women generally had much less control over the benefits from scheme participation than did men, while often carrying an equal or larger share of the labour and management burden. The distribution of the benefits and costs of participation was much more skewed against women in the coffee scheme than in the pineapple one.

References

- Bolwig, Simon (2012): Poverty and gender effects of smallholder organic contract farming in Uganda; International Policy Research Institute (IFPRI); available online at: <http://www.ifpri.org/publication/poverty-and-gender-effects-smallholder-organic-contract-farming-uganda>
- Ethiopian Apiculture Board (EPA; 2014): API News – The API Sector Newsletter Volume 1, No. 2, December 2014
- International Finance Corporation (IFC/ 2013): Working with Smallholders: A Handbook for Firms Building Sustainable Supply Chains; Washington; available online at: <http://www.ifc.org/wps/wcm/connect/8dc5628042112fdbba2fff494779b2ad/Handbook+-+Working+with+Smallholders.pdf?MOD=AJPERES>
- Laven, Anna and Rhiannon Pyburn (2012): Challenging chains to change: Gender Equity in Agricultural Value Chain Development; Royal Tropical Institute (KIT), Agri-ProFocus, International Institute of Rural Reconstruction (IIRR); available online at: https://www.cordaid.org/media/publications/Challenging_chains_to_change.pdf
- Leavens, M. Kennedy and C. Leigh Andersen (2011): Gender and Agriculture in Tanzania – Literature Review; Evans School of Public Affairs; University of Washington; available online at: http://evans.washington.edu/files/UW_EPAR_Request_134_Gender%20and%20Ag_04102011.pdf
- Maertens, Miet and Johan F.M. Swinnen (2009): Gender and Modern Supply Chains in Developing Countries; available online at: <http://ideas.repec.org/p/lic/licosd/23109.html>
- Mayoux, Linda and Grania Mackie (2008): Making the strongest links: A practical guide to mainstreaming gender analysis in value chain development; International Labour Organization (ILO); available online at: <http://www.oitcinterfor.org/sites/default/files/Value%20Chain%20Design%20low%20res2%201.pdf>
- Norell, Dan and Margie Brand (2013a): Field Guide: Integrating Very Poor Producers into Value Chains – Field Guide; Second Edition; on behalf of World Vision, fhi360 and USAID; available online at: <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>
- Norell, Dan and Margie Brand (2013b): Pocket Guide: Integrating Very Poor Producers into Value Chains – Pocket Guide; Second Edition; on behalf of World Vision, fhi360 and USAID; available online at: <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>
- Oxfam (2012): Gender equality: it's your business; Briefings for Business No 7 International Edition; available online at: <http://www.oxfam.org/sites/www.oxfam.org/files/bfb07-gender-equality-its-your-business-060312-en.pdf>
- Piet Visser, Marc Steen, Juergen Greiling, Timoteos Hayesso, Rem Neefjes and Heinz Greijn (Eds.; 2012): Pro-Poor Value Chain Development: Private Sector-Led Innovative Practices in Ethiopia, SNV Netherlands Development Organisation, Addis Ababa, Ethiopia; ISBN 978-90-77821-31-2; available online at: http://www.snvworld.org/en/download/publications/pro-poor_value_chain_development_-_private_sector-led_innovative_practices_in_ethiopia.pdf
- Springer-Heinze, A. (editor and main author; forthcoming): ValueLinks Manual: The Methodology of Value Chain Promotion; Manual and Standard Material; 2nd edition; GIZ; soon available online at: <http://www.valuelinks.org/>
- World Bank (2014): Levelling the Field: Improving Opportunities for Women Farmers in Africa; available online at: http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2014/03/14/000333037_20140314131214/Rendered/PDF/860390WP0WB0ON00sure0date0March0180.pdf
- World Bank (website): Africa Gender Innovation Lab (GIL); <http://www.worldbank.org/en/programs/africa-gender-innovation-lab>

2.2.4/ Pricing mechanisms in contracts

For purpose and selected questions cf. CF Handbook Volume I, p.73ff; Box 17, p.75ff; Box 18, p.78f

Purpose

The purpose of this tool is to assist practitioners to understand different pricing mechanisms in farming contracts and to develop pricing formulas that provide a fair share of CF revenues to farmers (incentive for contract compliance) while reflecting the specific situation of the farming community, buyer's cash-flow capacities, target

market prices and the embedded services provided to contracted farmers.

Output

Assessment of different pricing mechanisms adapted to the specific situation.

Tool Pricing mechanisms in contracts

(Contributed by: Margret Will, 2015; partly based on Eaton and Shepherd, 2001, p.75ff)

Contract specifications are essential factors of success or failure of contract farming schemes (for contract specifications cf. CF Handbook Vol. I, p.73ff). Among contract specifications, pricing formulas are the ones that are most prone to conflict since prices are about sharing benefits and price risks between farmers and the buyer. Pricing formulas are designed to encourage farmers to comply with contract agreements, mainly with regard to reaching high yields and supplying agreed volumes and qualities at fixed times of delivery. The importance of pricing mechanisms in contracts is also a determining factor for farmers' planting decisions (cropping calendar and investments) taken after (minimum) prices have been announced/negotiated at the beginning of a growing season.

Factors determining price levels

There is no one-size-fits-all for pricing mechanisms for contract farming. On the contrary, pricing formulas have to be developed case by case to reflect:

- the income situation of farmers and the buyer;
- the risk-bearing capacities of the two partners in business;
- the product characteristics;
- the production and transaction unit costs;
- the procurement situation for farmers' produce and potential competition for supplies (risk of side-selling);
- the final markets and the competitive situation in the target markets; and
- the business climate.

Recommendations for developing and negotiating pricing mechanisms

- Combining guaranteed minimum prices for agreed volumes to be supplied (fixed minimum price) with dynamic pricing at the time of delivery (flexible price component e.g. reflecting local, regional or global market prices or price indices) allows farmers to take production decisions based on the fixed minimum price term while opening the opportunity to speculate and benefit from higher market prices at times of delivery. Such split prices usually motivates farmers to join a CF scheme and stay loyal to the agreement (for definitions of fixed, dynamic and split prices see table below).
- To raise transparency and build trust as crucial elements for reducing default rates, it is recommended to develop pricing formulas together with farmers and, for renewable contracts, to negotiate and agree on the adaptation of minimum prices and, if necessary, pricing mechanisms in regular intervals. To further enhance transparency and confidence, a trusted 3rd party (e.g. FBO leaders, association representative, community leaders, local government representatives) may be invited as unbiased observers – but never as party in negotiations!

Guidance for developing and negotiating pricing formulas

Guiding questions for determining prices and engaging contract farmers in price finding mechanisms are provided in the outgrower manual developed by Action for Enterprise (AFE) and Match Makers Associates (2009; p.32ff; cf. references below).

The following table gives an overview on different types of pricing formulas typically used in contract farming.

Types of pricing formulas typically used in contract farming

(Contributed by: Margret Will, 2015; see also explanations on p.77 and case examples on p.78ff)

Pricing formula		Description	Typical product ranges
Types	Sub-categories		
Fixed pricing (most common)	Minimum (floor or base) price	Guaranteed minimum prices remove the risk of price declines for sellers while providing opportunities to benefit from price increases at specified time of supply. For buyers, price risks may be high when prices surge.	e.g. tobacco industry, raw materials for canning
	Quality-based price	Fixed prices for different grades based on quality specifications determined in the contract.	
	Volume-based price	Fixed prices as a function of volumes supplied as determined in the contract.	
	Customer-based price	Prices fixed by the customer, usually not negotiable (e.g. intervention price set by governments).	
Dynamic pricing (flexible, market-based)	Spot market price	Real-time market price dependent on supply and demand in specified markets.	usually informal contracts for local market supplies
	Market-based price	Pricing formula reflecting global, regional or local market prices at time of sale of processed product.	e.g. sugar industry, oil palm
	Prices on consignment basis	Prices reflecting market prices after products have been sold by intermediaries on commission basis.	e.g. fresh produce in local markets
	Inventory dependent price	Prices depending on goods in stock and time of sales (e.g. warehouse receipt system).	e.g. staple crops
	Auction price	Prices depending on competitive bidding.	e.g. commodities like coffee, tea, cashews, cotton, tobacco
	Split pricing (also called divisible surplus or divisible profit share)	Payment of a base price plus bonus payments as quality and/ or productivity incentives (e.g. three tier arrangement with the first tier ensuring that production costs are covered, the second tier ensuring reasonable margins to both parties and the third tier resulting from above average returns as a combined result of good yields and good sales prices). See p.78	any type of product
Sustainable pricing		Pricing formula considering production costs, wealth impact (Cost of Basic Needs/ CBN approach) and livelihoods dynamics. See p.78	high value products, sustainable sourcing concept

Explanations of pricing mechanisms

(Eaton and Shepherd, 2001, p.75ff, verbatim citation)

Fixed prices

Fixed prices are the most common method. The practice is usually to offer farmers set prices at the beginning of each season. In almost all cases, fixed prices are related to grade specifications. In calculating prices there may be a tendency for sponsors/ buyers to adopt a cautious approach because of the danger of market price fluctuations. Fixed price formulas are usually ideal for the sponsor; however, where alternative outlets exist, farmers may consider such arrangements to be disadvantageous if prices increase on the open market. For managers, the set price formulas are preferable for both budgeting and marketing purposes, although they are still obliged to purchase the crop at the prices stipulated in the contract if the open market prices decrease below the set prices. The fixed price structure is widely used by tobacco corporations and companies processing crops for canning.

Dynamic or flexible prices

This structure applies to prices calculated on a formula related to changing global and local markets. This form of pricing is common in, for example, the sugar industry where the final price to the farmer is known only after the processed sugar has been sold. Farmers are paid on the basis of a formula which takes into account agreed processing and other costs of the sponsor as well as world market prices over a particular period. The prices of internationally traded commodities for which there are few, if any, grades are readily accessible and should also be made available to farmers. ... Wherever payments are dependent on

fluctuating markets an independent arbitration mechanism should be developed by the industry to safeguard the interests of both the farmers and the sponsors.

Spot market prices

Payments based on spot-market prices can be very complex and often lead to misunderstandings and disputes. Such an arrangement removes income guarantees for farmers but does enable them to take full advantage of high market prices. The main problem with this approach is that sponsors and farmers must arrive at a common understanding of what constitutes a market price that is relevant to the higher quality that contracted farmers could be expected to produce.

Prices on consignment basis

Prices calculated after the produce has been marketed and sold by intermediaries may be considered another form of spot-market pricing. This form of payment is normally termed "on consignment" and is mainly used by informal small-scale developers.

Split pricing

Under this system an agreed base price is paid out at the time of purchase or at the end of the harvesting season. The final price is calculated once the sponsor has on-sold the commodity, and depends on the prevailing market price. If the crop is sold in the fresh form the second price can usually be calculated within a month. When the product is processed it may take much longer.

See also "**Price mechanisms in agricultural production contracts**" (UNIDROIT, 2014).

Split pricing: explanations and calculation example

(Contributed by: Margret Will, 2015)

Pricing elements	Explanation	Calculation example
Absolute minimum price	Not yet covering profit margin/ return on fixed investments of producers	Ideally jointly discussed and developed by farmers and buyer (if necessary with production expert); e.g. based on: <ul style="list-style-type: none"> • average production costs e.g. for 1 ha incl. material/ labour • total average production costs divided by average yield
Minimum price (base price)	Profit margin: <ul style="list-style-type: none"> • often based on market price (dynamic) • must be attractive for farmers to grow the CF crop and sell to the buyer 	Absolute minimum price + minimum profit margin for farmers (dynamic or fixed) = Minimum price (base price)
Adjusted base price	Quality incentive	Minimum price (base price) + bonus for quality reaching premium in end market = Adjusted base price
Paid price	Payment according to agreed supply/ payment calendar	Adjusted base price • costs for embedded services provided by the buyer = paid price
End of year profit bonus	Productivity incentive paid to farmers as incentive for future performance	Potential end of financial year profit bonus calculated on the basis of farm productivity (volume and quality supplied) and buyer company's profit

Case example Pricing mechanisms in contracts

Dynamic (flexible) prices

(Eaton and Shepherd, 2001, p.76ff, verbatim citation)
In Papua New Guinea, smallholder oil-palm producers on nucleus estates are paid on the basis of such a formula, which is monitored and approved by the Government. In Guyana, sugar-cane producers receive two-thirds of returns from sugar sales and the factory one-third, to cover costs and profit. In some cases farmers and sponsors may share price increases and costs proportionately. In the Philippines, for example, a pig-rearing contract specifies that the farmers and the company shall divide proceeds equally, after deduction of the agreed expenses of the company. The expenses include stock feed, medication, a marketing fee and an allowance for shrinkage between delivery of the animal and eventual sale. Such a profit-sharing arrangement can be successful if the contractor is efficient and honest. However, in other circumstances this system can seriously prejudice farmers by putting them at the mercy of inefficient processing and marketing. Wherever payments are dependent on fluctuating markets an independent arbitration mechanism should be developed by the industry to safeguard the interests of both the farmers and the sponsors.

For a case example on split pricing for swine raising in Thailand see Eaton and Shepherd (2001, Annex 5, p.132ff).

Spot market prices

(Eaton and Shepherd, 2001, p.76ff, verbatim citation)
This form of pricing is common in Thailand where individual small-scale developers act as brokers under informal contracts. The brokers make arrangements with farmer groups to sell fresh vegetables to wholesalers. They collect the crops at the farm-gate, arrange transport to Bangkok and, after the produce has been sold, pay the farmers a percentage of the final sale price. In most cases the open market pricing system is unsatisfactory, as the farmers do not have control over the price they receive or knowledge of how it is calculated.

Prices on a consignment basis

(Eaton and Shepherd, 2001, p.76ff, verbatim citation)
In Thailand, individual developers arrange to supply crops to markets on consignment. They take a commission out of the farmers' revenue and, at the same time, deduct the costs of seed and fertilizer advanced to the farmers. Consignment pricing arrangements are rarely found in well-structured contract farming

projects and are best avoided. The growing importance of supermarkets suggests that more and more fresh produce will be delivered at predetermined prices rather than on a consignment basis.

Dynamic market reference price

(Action for Enterprise (AFE) and Match Makers Associates, 2009, p.33, verbatim citation)

Instead of a fixed, pre-determined price for the vegetables it procures from outgrowers, ITC India follows a dynamic market reference pricing policy. Every evening, ITC staff compiles prices from reference mandis (government mandated auction markets) and offers those to farmers at its collection centre the next morning. The farmer also is able to get market prices at their village farm gate. ITC deducts the packaging and transportation costs (10 percent), which farmers would have incurred if they had sold their produce directly in the mandis. Farmers still save a lot since they don't have to pay mandi tax, loading and unloading charges, and it saves their commute time. Farmer's net income increases by four to eight percent by selling their vegetables to ITC directly at the collection centre.

Quality-based payment for milk

(Greiling, 2009, p.2, verbatim citation)

Opportunities for adding value along the milk chain are far greater than so far exploited. Many (Ethiopian and foreign) consumers reject local milk and milk products because of quality defects, short shelf life, etc. and instead revert to imported products that are 2-3 times more expensive and require millions of US\$ annually for their importation. Winning these critical consumers over, making them buy local products and thus replacing imports, requires a systematic approach towards quality, quality measurement, the design of a practical routine quality measurement system including feedback to producers and embedded services, and an economically viable payment structure based on chemical and bacteriological grades of collected raw milk. SNV and its partners in research and development designed such a system and began to implement it with Tsega & Family. A new payment structure has been suggested; other sector operators are ready to implement the system. This situation presents a new opportunity for more income and employment along the chain, and at the same time a major step forward with regard to consumer protection.

Addressing side-selling

(Norell and Brand, 2013, p.38; verbatim citation)

The PAGE project in Sierra Leone addresses the issue of side-selling by facilitating an advance payment to the farmers. In one scenario, the buyers pay the producers the prevailing market price at peak harvest time, which is often relatively low, so the farmers receive initial payment right away. When the buyers eventually re-sell at a higher price, they pay a commission to the farmers. In a second scenario, the buyers receive credit from their customer (in this case, the World Food Programme), which they use to pay the farmers the higher price right away. When the buyers in turn re-sell the produce to WFP, they use the proceeds to pay off the initial credit.

Sustainable pricing

(GIZ, 2012, verbatim citation)

Farmer's income generated by vanilla production decreased steadily over the last 10 years. At current market prices (2011), vanilla producers in the north-west of Madagascar start searching for alternative income sources, reducing their efforts in their vanilla fields. To counter this trend a price that guarantees for long term production and steady increases in income and living conditions of small-scale farmers was to be found.

Sustainable pricing is based on three pillars: Pillar A defines a sustainable price on the basis of production cost; Pillar B checks the impact of this new price on the wealth of the local farmers; and Pillar C looks at the dynamic of the socio economic status of those farmers over time.

Different world market reference prices for cotton

(Peltzer and Roettger, 2013, p.19, verbatim citation)

The combination of pre-planting prices and cotton purchase price formulas, which refer to an average one-year world markets price, forces cotton companies in West and Central Africa (WCA) to carefully balance forward sales over 12 months and longer. If this is properly done, market price fluctuations can be partially eliminated. Most cotton companies in Eastern and Southern Africa (ESA) on the other hand relate their cotton purchase prices to the world market price at harvest time. This is a major reason why cotton companies in WCA are able to maintain a rather high purchase price for the ongoing 2012/13 harvest, while cotton purchase prices in ESA (Zambia/ Malawi) were

cut by 50 per cent in 2012. These elaborations show that the business of buying and selling cotton and securing the price of cotton are linked to significant commercial risks.

The need for price setting 'intelligence' for cotton in West Africa

(Nelen, Meenink and Traoré, 2012, p.5, verbatim citation)

Farmers and companies experience yearly price fluctuations, particularly during the 2000s. Furthermore, in 'Inter-professions' the cotton companies and government departments still set the rules for farm gate prices by complex price mechanisms, and when necessary, combine it with political pressure on farmers' leaders – or they by-pass existing organisations and create parallel ones (as happened in Benin). In addition, companies tend to be reluctant to provide information to farmers' organisations as to levies and the functioning costs of the different chains (lint, grains for oil). Insufficient 'market intelligence' makes it a challenge for farmers to engage effectively in this 'power play'.

National associations pay particular attention to information sharing and joint country analyses on cost prices and operational costs within cotton supply chains. Different initiatives have emerged the past eight years: farmers' journals (in national languages), radio broadcasting, proper studies on price mechanisms and regular debates (some undertaken with technical/financial support from SNV, ICCO and Oxfam). Negotiations in the past years confirm the need for local sharing and accountability. Since prices are as much determined by world prices as by national negotiations, farmers have started to carefully analyse national outcomes and act if outcomes were below their cost price calculations. Cross border sharing of experiences between local farmer leaders in Mali, Burkina and Benin allowed for mutual understanding

of arrangements 'on all sides'. Better informed local organisations have from 2007 until 2010 regularly and successfully required the re-opening of negotiations on bottom prices or compensation. Renegotiated farm gate prices vary from +3% to +11% (an estimated gain of € 4-11 million); price reduction of fertilisers saved € 9 (Burkina Faso, 2007) to 16 million Euro (Mali, 2010).

Dealing with price volatility in contracts for paprika in Malawi

(Agar and Chiligo, 2008, p.73f, verbatim citation)

There is no known international price index to establish the world market price for paprika, as with cotton, tea and other crops. Prices are volatile with considerable variability. The Cheetah (buyer company) contract specifies minimum prices for grades A-D, which are defined in simple terms. These are expressed in US \$ to benefit sellers from any devaluation, though Cheetah always pays in Malawi Kwacha (MK) equivalent as required by law. Cheetah also has an informal policy of paying not less than \$1/kg for grade A, which is above the stated minimum price in its contract so as not to discourage farmers. At the start of the season each buyer announces the prices they are offering. This is a unilateral buyer decision and one that farmers complained of not being involved in. Although there are ... clubs and associations that can negotiate for members, this does not necessarily commit members to the same buyer. The decision to sell is primarily made by individuals, though members of some clubs might agree to sell to one buyer at an agreed common price. Cheetah offers a club volume bonus to encourage all members of a club to sell to it, of 3% if the club members collectively sell 1,000T, and 5% if 2,000T or more, equating to MK 7-11/kg on the grade A deseeded price.

The interviewed farmers were aware of their contract obligations to Cheetah, but stated that they are tempted by price and cash offers from other buyers.

References

- Action for Enterprise (AFE) and Match Makers Associates (2009): Facilitating the Development of Outgrower Operations: A Manual; USAID; available online at: www.actionforenterprise.org/paper-usaid.pdf
- Agar, Jason and Peter Chiligo (2008): Contract Farming in Malawi; Ministry of Agriculture and Food Security and World Bank Malawi; available online at: <http://businessinnovationfacility.org/forum/topics/contract-farming-in-malawi-kadale-consulting-report>
- Eaton, Charles and Andrew Shepherd (2001): Contract Farming: Partnerships for Growth; FAO Agricultural Service Bulletin 145; Rome; available online at: www.fao.org/docrep/014/y0937e/y0937e00.pdf
- GIZ (2012): Sustainable pricing: A price concept promoting sustainable livelihoods of small scale vanilla farmers in Madagascar
- Greiling, Juergen (2009): From 'Dangerous Good' to 'Prime Product' – the Value of Quality-Based Payment for Milk; SNV Netherlands Development Organisation; available online at: http://www.snvworld.org/download/publications/et_from_dangerous_good_to_prime_product_-_the_value_of_quality-based_payment_for_milk.pdf
- Nelen, Joost, Hans Meenink and Nata Traoré (2012): From handling cotton to dealing with prices and services: empowering farmers' organisations in the West African cotton sub-sectors; SNV Netherlands Development Organisation and Seas of Change; available online at: http://www.snvworld.org/download/publications/9_soc_west_africa_cotton.pdf
- Norell, Dan and Margie Brand (2013): Field Guide: Integrating Very Poor Producers into Value Chains – Field Guide; Second Edition; on behalf of World Vision, fhi360 and USAID; available online at: <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>
- Peltzer, Roger and Daniela Roettger (2013): Cotton Sector Organisation Models and their Impact on Farmer's Productivity and Income; German Development Institute (GDI/ DIE) Discussion Paper 4/2013; available online at: <http://www.die-gdi.de/discussion-paper/article/cotton-sector-organisation-models-and-their-impact-on-farmers-productivity-and-income/>
- UNIDROIT (2014): Price mechanisms in agricultural production contracts; UNIDROIT Working Group for the preparation of a Legal Guide on Contract Farming; Fourth Meeting, Rome, 17-21 November 2014; available online at: <http://www.unidroit.org/english/documents/2014/study80a/wg04/s-80a-01-add19-e.pdf>

2.2.5/ Contract negotiations

For purpose and selected questions cf. CF Handbook Volume I, p.84ff

Purpose

The purpose of this tool is to support competent and transparent negotiations based on equal voice and informed business decision-making as a pre-condition for motivating farmers and the buyer to honour their contracts.

Output

Skills for negotiating mutually beneficial contracts are improved.

Tool Training guide “Introduction to negotiation and contracting”

(Contributed by: Moritz Heldmann and Matthias Schnier, GIZ Togo, 2015)

Purpose and outputs of the training guide

Forming part of a practical trainer’s guide developed for training of actors in agribusiness value chains (VC) in the context of weak and unstable business relations, this tool aims at:

- creating a common understanding of value chain functioning, the roles, tasks and services offered by different operators as well as of prevailing business relations;
- providing VC actors with information concerning the advantages, opportunities and risks of more formalised business relations in the context of contract farming;
- simulating realistic negotiation scenarios by approaching the challenge in two stages: firstly, negotiations among operators at a specific VC stage, i.e. among farmers, among buyers (‘intra VC stage’); and secondly between representatives of different VC stages, i.e. between farmers as suppliers and traders/ processors as buyers (‘inter VC stage’);
- giving each operator of the value chain the opportunity to experience the role of operators at other VC stages in role play games with the objective to emphatically change negotiation perspectives;
- applying newly acquired negotiation skills in an environment, in which negotiators in the role plays do not face economic consequences.

Thus, the tool can be applied as part of a concrete CF facilitation process as suggested in the GIZ CF Handbook (phase 2, step 4) or may serve a rather general purpose for introducing contract farming (comprehensive trainer’s manual developed by GIZ Togo).

The training supports participants (expected outputs):

- to gain a better understanding of VC functioning;
- to understand pros and cons of formalised business relations and apply them in negotiations;
- to acquire and apply technical negotiation skills;
- to understand mutual and diverging interests in VCs and experience discussions on sometimes conflicting interests.

What is this tool about?

Forming part of the practical trainer’s guide “Introduction to negotiation and contracting in the context of weak business relations in agribusiness” (draft, so far only available in French) developed by GIZ in Togo, the tool serves the development of negotiation capacities in the context of extremely volatile, short-lasting and spot-market oriented business relations. Targeting smallholder farmers as well as micro and small companies in agribusiness value chains, the training manual provides basic theoretical inputs interwoven with practical simulation examples. Each theoretical input is illustrated by practical examples, each role play simulation is evaluated and lessons-learned are extracted in a participatory manner.

Given the specific socio-economic and political setting in francophone Togo, for which the manual has been developed, the theoretical part of the training manual and the practice-oriented role plays have to be adapted to the requirements of other target groups and institutional frameworks (e.g. contract related legislation, literacy levels and business attitudes) if used in other countries and other socio-economic and political settings.

**Description of the generic training sequence
(T = Theoretical input; P = Practical exercise):**

- T1: Introduction to value chain development using the ValueLinks methodology
- P1: Prisoners Dilemma or “Game of A and B”
Introductory team-effort aiming at illustrating rigid interactions in negotiations and initiating willingness to collaborate amongst negotiating parties in a playful manner.
- T2: Theoretical input on negotiation techniques
- P2: Intra-stage negotiations
This role game stresses the importance of coordination, cooperation and alignment of negotiation approaches of interest groups within the same VC stage (‘intra-stage’, i.e. farmers or buyers). The aim is to foster stronger representation of interests and gain in efficiency. This exercise enhances negotiation skills among farmers and among buyers each at their stage of the VC (peer learning). By supporting the clarification of issues at stake and objectives to be achieved in negotiations, the results serve as a basis for a better representation of interests. The groups at each VC stage may also be mixed with operators of other VC stages to induce a perspective change and enhance the understanding of the attitudes, challenges and opportunities of other operators in the value chain.
The role play enables trainees to apply negotiation skills and to agree on their strategy for the forthcoming negotiations with business partners at other VC stages (e.g. which prices, payment and other contract specifications to negotiate for or whether to aim at externalising obstacles to business to other stages of the VC).
- T3: Theoretical input on contracts
- P3: Inter-stage negotiations
Building on the negotiation strategies developed in the intra-stage role game, trainees encounter in the inter-stage negotiation scenario the issues at stake at other VC stages and learn to negotiate issues at stake with other VC actors in a bilateral way. Enabling participants to take different role perspectives that may represent common or divergent business interests, trainees experience/ identify opportunities of and limitations for pushing through their interests in negotiations. By doing so, the readiness and willingness to

arrive at reasonable and mutually beneficial compromises are tested and developed.

- T4: CF scheme overview
(cf. GIZ CF Handbook and brief presentation in the GIZ training guide “Introduction to negotiation and contracting”)
- P4: Illustration, analysis or discussion of concrete CF examples
Depending on the objectives of the session and the interests, capacities and experiences of participants and facilitators, examples may be taken from the literature using case studies from the region, in which the training takes place or from other countries, from products participants are working with or from other value chains. In any case, own experiences and the capacities of facilitators in illustrating and analysing the case studies and moderating the discussions of participants on the examples will be essential for trainees to benefit from this session.

References

GIZ Togo (2014): Training Manual: Introduction to negotiation and contracting in the context of weak business relations in agribusiness; draft, only available in French

2.3/ Tools for contract farming management

The CF management plan, CF work plan and the CF budget (cf. GIZ CF Handbook Volume I, p.94f) provide the framework for the establishment of field operations. The main CF management functions are:

- to assure sufficient presence of the firm in the field (especially at farm/ nucleus farm level) to build the suppliers' confidence in the buyer's commitment and management capacities;
- to select farmers and nucleus farmers, to assure their timely registration, to train and advise farmers and to monitor and control the application of agreed agricultural practices;
- to assure well-timed ordering and distribution of sufficient inputs as well as the coordination of harvesting and collection, quality control, transport and logistics;
- to identify, communicate and manage possibly emerging risks (cost drivers, food safety/ quality, default, etc.).

The effective management of field operations requires appropriate human and financial resources, hands-on and efficient (regarding transaction costs) approaches, a situation-specific physical setup of required infrastructure, well-organised transport and logistics systems and a suitable mentoring/ monitoring system for engaging large numbers of farmers via nucleus farmers, intermediaries and/ or own staff.

Tools for contract farming management described in this chapter::

- 2.3.1 Field management (operational structure and staffing)
- 2.3.2 Risk management

2.3.1/ Field management (operational structure and staffing)

For purpose and selected questions cf. CF Handbook Volume I, p.92ff

Purpose

Since there is a strong link between the quality of CF management and CF performance, well-designed field management structures and processes and management skills are crucial for smooth day-to-day operations and the viability of CF schemes.

The purpose of this tool is to support the development of efficient structures, adequate capacities and functioning processes for managing the farm supply – firm procurement interface (in terms of supply chain management) with the objectives to

reduce uncertainties and risks for:

- farmers regarding reliability of embedded service provision (timeliness and appropriateness), transport and logistics as well as payment procedures and timelines; and
- buyers regarding procurement in terms of timing, volumes, quality and logistics as well as transaction costs.

Output

Field management system including staffing and infrastructure requirements.

Tool Field management (operational structure and staffing)

(Contributed by: Margret Will, 2015)

Field management is about the coordination of all operations for procuring and providing required inputs and other embedded services in time and for organising supplies from field to farm to collection point to the buyer's plant gate. Efficient CF management requires the firm's visibility in the field, reliable and effective two-way communication flows and routines between farmers and the buyer, and well-organised time and cost-saving logistics in order to:

- control and reduce potential risks (food safety and quality hazards, risks of pre- and post-harvest losses and default);
- increase supply chain efficiencies and hence reduce transaction costs for providing embedded services and procuring produce;
- add value and increase CF revenues through the transfer of knowledge and technologies (see capacity development and service assessment in section 2.1.6).

The CF management structures and procedures depend on

- the management commitment of the off-taking company;
- the farmers' capacities and farming systems;
- the product features;
- the existing infrastructure (e.g. access roads, collection and storage facilities, telecommunication);
- the availability and competencies of staff or external intermediaries for field management;
- the company's overall management and financial resources; and
- potential 3rd party support.

Elements of the field management system

The CF business model selected (informal, intermediary, multipartite, centralized or nucleus estate CF business model or intermediate model between several of the basic models; cf. CF Handbook Volume I, Box 1, p.17f) informs:

- the CF management system for mentoring and monitoring farmers as well as organising transport and logistics; and
- the CF physical setup including infrastructure and equipment (e.g. collection centre, transport vehicles).

Field staff

(International Finance Corporation (IFC), 2013, p.45; verbatim citation)

To deploy field staff, firms have generally followed one or a combination of two models:

- Model 1: Place staff at a central location, such as crop buying stations, farmer training centres, or (in the case of input firms) agro-retailers and let farmers come to them.
- Model 2: Send field staff to work with farmers on their farms. This traditional extension model is more expensive since field staff is required to travel.

Establishing decentralized buying stations shortens the chain between farmers and off-takers and enables communication between the two. Farmers bring their crops directly to the station, where field staff conduct simple quality tests, including moisture and defect testing. The test results determine the price paid to farmers, creating incentives for

farmers to improve crop quality. Training on quality and other topics can be held at the station to reinforce key messaging. Since the firm is directly involved in the crop’s purchase, field staff can track and segregate products by quality.

While buying stations can improve crop quality, they have limited ability to improve traceability because interactions with farmers occur at the stations rather than at the farms. Furthermore, for most certification programs, firms must collect information on field locations and agricultural practices with farmers at their farms. Similarly, field staff placed at farm training centres and agro-retailers are limited because they do not regularly visit farms to provide onsite coaching directly to farmers.

When field staff works with farmers directly, or through a network of farmers, training can take place in farmers’ own fields and address their specific concerns. This model is especially useful for building trust and goodwill among farmers, which can in turn reduce side-selling. Disputes between farmers and the firm can be resolved quickly. In other cases, a hybrid strategy makes sense. For example, a farmer training centre could have fixed trainers for farmers attending centre-based sessions and could also serve as a base for mobile staff.

Extension system leveraging lead farmers for mentoring and monitoring contract farmers

(International Finance Corporation (IFC), 2013, p.48; verbatim citation)

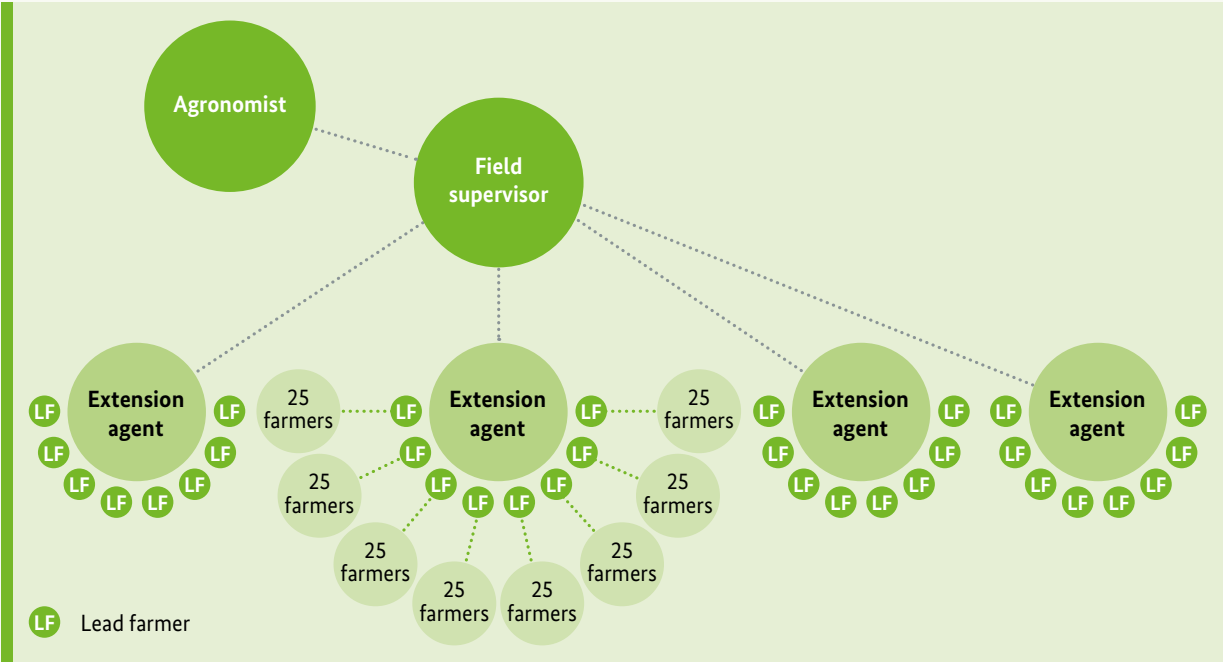
In the sample design shown below, five paid staff train and oversee the output of 800 farmers. A field supervisor coordinates the work of four field staff who deliver messages and training to lead farmers and farmer groups in an assigned territory. The farmer groups could be pre-existing producer organizations or formed for the purpose of receiving agricultural training.

Depending on travel time between farmer groups, an extension agent can typically meet with two farmer groups daily. This enables an agent to visit eight farmer groups in four days, reserving the fifth workday for meetings, planning, report writing, and vehicle maintenance. The fifth day might also include training from a contracted agronomist who develops the messages and training materials used by field staff.

Firms often employ a “rolling design” that maximizes the number of trained farmers. If one crop cycle of intensive training is enough to reach a critical mass of trained farmers in a given area, the extension team will move on to a new location. The network of lead contact farmers and farmers’ groups will then support the learning of late adopters in the first area.

Extension system leveraging lead farmers for mentoring and monitoring contract farmers

(IFC, 2013, p.48; verbatim citation)



Factors impacting the cost of extension per farmer

(IFC, 2013, p.57; verbatim citation)

Designing an effective extension system involves balancing multiple competing factors that influence budget and farmer reach. The figure below describes the balance firms should seek between an affordable extension budget and reaching farmers. The following list of questions and activities, though not exhaustive, provides a guide for determining the form and function of an extension system:

Farmer density: How many farmers need to be trained at each location or village? What is the distance between villages? How many farmer meetings can an extension hold per day?

Degree of aggregation: It is less expensive to train well-organized farmers because some groups can transmit information among members without outside assistance. If farmers are not aggregated, field staff may need to form simple groups before beginning technical training.

Farmer characteristics: Training must be tailored to farmers' socioeconomic characteristics, including literacy levels and income. In addition, farms' physical characteristics, including farm size, and conditions, affect farmers' ability to utilize inputs and training. Firms should analyse and, if necessary, segment farm populations to ensure effective training.

Presence of nongovernmental organizations (NGOs):

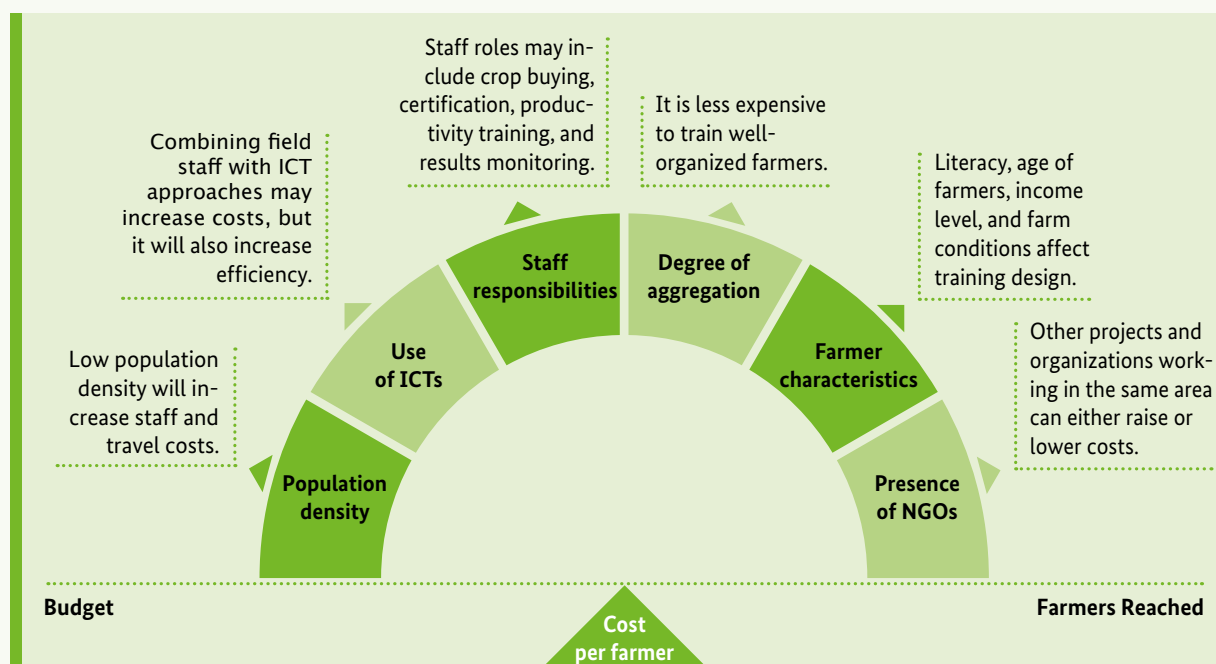
The presence of local or international NGOs can be either an opportunity or a challenge. Costs may be reduced if the firm's objectives can be met by other organizations. However, the firm will likely have to match the NGO's salaries or risk having its staff poached. In either case, close coordination between the NGO and firm is essential. A written memorandum of understanding may be useful.

ICT approaches: While combining field staff with ICTs will increase costs, it can also increase staff efficiency and effectiveness. For example, although digital tablets increase costs, they allow staff to use training videos and collect data.

Budget: The costs, capacity, and intensity of various communication options vary widely. Information delivered by field staff via farm visits can transmit a large amount of detailed information, but the intervention may cost more than \$100 per farmer annually. Radio messages may cost less than \$1 per farmer but transmit a limited amount of information with minimal interaction with message recipients. As a result, the impact of the message may be minimized, and the percentage of farmers adopting new behaviours will be lower.

Factors impacting the cost per farmer of extension systems

(IFC, 2013, p.57; verbatim citation)



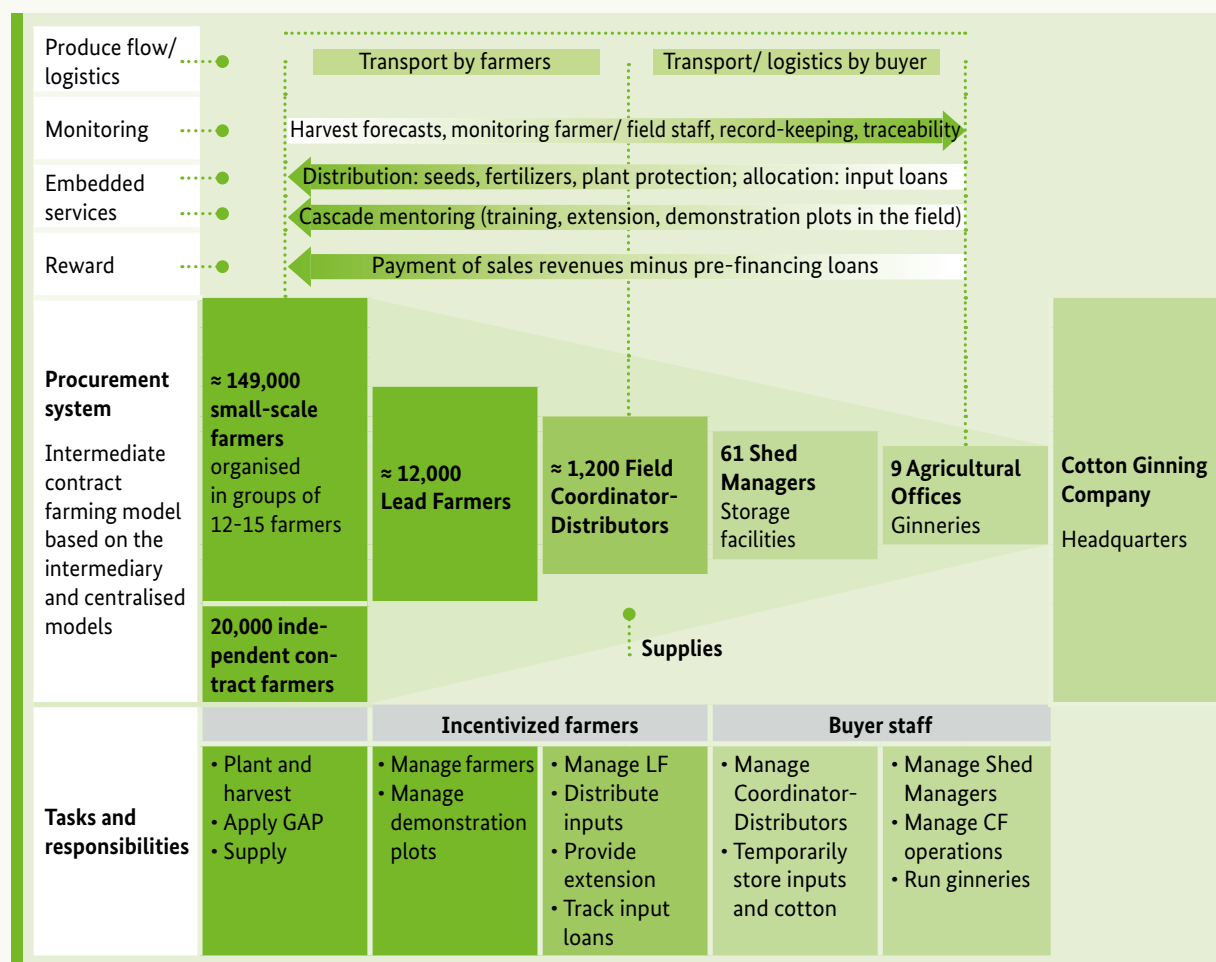
Example of a CF field management system

The following graph illustrates how a field management system could look like with regard to opera-

tional structures, process flows and human resources (company staff and external intermediaries).

Example of a CF field management system

(Will, 2013, based on personal communication)



For guidance on the development of field management systems see CF Handbook Volume I

- Outline of the prospective structure and management plan (cf. Activity 3.2, p.71ff);
- Finalisation of the CF business and management plans and budget (cf. Activity 5.1, p.94f);
- Set up of CF infrastructure and management for field operations (cf. Activity 5.2, p.96f);
- Development of CF capacities of farmers, farmer groups, field and management staff (cf. Activity 5.3, p.98f).

Further guidance

- Hiring staff for outgrowing operations (cf. Action for Enterprise, 2009, Question Guide #2, p. 10);
- Communicating with outgrowers (cf. *ibid.*, Question Guide #5, p.19f);

- Procuring from outgrowers/ field management (cf. *ibid.*, Question Guide #10, p.34ff);
- Illustrative company procurement list, Procurement system monitoring list (cf. *ibid.*, p.37);
- Selecting and engaging lead farmers (cf. *ibid.*, Question Guide #3, p.13ff);
- Providing technical assistance and training to outgrowers (cf. *ibid.*, Question Guide #6, p.21ff);
- Developing demonstration plots (cf. *ibid.*, Question Guide #12, p.40ff);
- Developing trial plots (cf. *ibid.*, Question Guide #13, p. 43ff);
- Job description for field extension officers (cf. Eaton and Shepherd, 2001, Annex 6, p.138f);
- Farmer performance record (cf. Eaton and Shepherd, 2001, Annex 8, p.143f);
- Field staff – effective but costly (cf. International Finance Corporation (IFC), 2013, p.45ff).

Template Field management (operational structure and staffing)

(adapted from Eaton and Shepherd, 2001, p.83ff)

Field management responsibilities	Describe tasks/ assign tasks to different field management levels (e.g. technical advisor (TA), area manager (AM), field officer (FO), lead farmer (LF))	Describe required infrastructure, equipment and logistics
Coordinate field staff		
Manage the team of field advisors		
Train, advise and supervise field advisors		
Report to company management on field activities		
Coordinate production, supplies and payments (if required)		
Identify production areas		
Select lead farmers and farmers		

Field management responsibilities	Describe tasks/ assign tasks to different field management levels (e.g. technical advisor (TA), area manager (AM), field officer (FO), lead farmer (LF))	Describe required infrastructure, equipment and logistics
Coordinate production, supplies and payments (if required)		
Facilitate farmer group development		
Implement internal auditing (in case of certification needs)		
Provide material inputs		
Provide logistical support		
Organise procurement (e.g. harvesting, collection, grading)		

Field management responsibilities	Describe tasks/ assign tasks to different field management levels (e.g. technical advisor (TA), area manager (AM), field officer (FO), lead farmer (LF))	Describe required infrastructure, equipment and logistics
Coordinate production, supplies and payments (if required)		
Document supplies		
Carry out payments to farmers (if not e.g. through mobile banking)		
Manage collection centre and transport means		
Administer budget of field operations		

Field management responsibilities	Describe tasks/ assign tasks to different field management levels (e.g. technical advisor (TA), area manager (AM), field officer (FO), lead farmer (LF))	Describe required infrastructure, equipment and logistics
Manage the agronomy		
Provide field extension services		
Transfer technologies		
Establish cropping schedules		
Establish/ update harvest forecasts		
Implement training, man- age research/ demonstration plots		
Supervise farming practices		

Field management responsibilities	Describe tasks/ assign tasks to different field management levels (e.g. technical advisor (TA), area manager (AM), field officer (FO), lead farmer (LF))	Describe required infrastructure, equipment and logistics
Maintain farmer-firm relationships		
Organise farmer-firm management forums		
Discuss risks and opportunities of contracts with farmers		
Organise both regular and unannounced meetings at farms		
Observe effects of CF on gender roles, distribution of workload and benefits		
Participate in community affairs to foster trust and acceptance		

Template Assessment of different options for field management

(Contributed by: Margret Will, 2015)

Options	Pros (under given circumstances)	Cons (under given circumstances)
<p>Company staff: Full-time field staff coordinates, advises and supervises individual farmers or small farmer groups, handles input supplies, sometimes also critical agronomic practices (e.g. plant protection). While this option facilitates production control, quality assurance and traceability it requires highly motivated and competent field staff and usually involves high costs.</p>		
<p>Company groups: The buyer obliges farmers to form farmer groups and usually closely supervises group leaders and instructs them to assume field management tasks. Even if a low-cost solution, such externally motivated groups are often characterised by lack of leadership and service capacities resulting in weak coordination and cooperation as well as mistrust, weak cohesion and lack of ownership.</p>		
<p>Outsourcing to intermediaries: The buyer contracts intermediaries (aggregators, agents, traders, advisors often remunerated on commission basis) as link between farmers and the firm to channel embedded services and organise procurement. While this solution is usually more cost-effective and less risky for buyers if results-based payments are agreed, the control over production, quality, timing and traceability of produce is more limited and farmer-firm linkages are weaker. This may result in low motivation of farmers and low rates of farmers retained in the CF scheme.</p>		
<p>Farmer-based organisations (FBOs): Existing membership-based FBOs (farmer groups, associations, cooperatives) assume the role and responsibilities of managing the farm supply-firm procurement interface. The FBO requires managerial and technical capacities to provide embedded services to members, negotiate with the buyer on behalf of its members and assure timely deliveries and record-keeping. Peer pressure and scale economies of collective action can provide advantages regarding low default rates and comparably low transaction costs. But note: FBOs have to be very strong for this option to produce aspired results.</p>		

Case examples **Field management (operational structure and staffing)**

MultiFlower (MF) field management system

(Action for Enterprise and Match Makers Ass., 2009, Appendix B, p.B-7f; verbatim citation)

MF began with the production of flower seeds in 1996 on a small field with a small number of outgrowers. The only field officer at that time was the owner who remains the majority shareholder. Since then, MF has increased its turnover from around € 80,000 in 1996 to € 800,000 in 2007. MF exports a wide variety of flower seeds.

A female manager, assisted by a female deputy manager, is responsible for MF's flower seed contract farming (CF) operations. Currently, MF employs nine male field officers (FOs) and one field supervisor. With the exception of the supervisor, field officers do not hold a degree in agriculture; they are, however, highly experienced farmers. The FOs report to the supervisor every morning to plan activities for that day – or for several days if they must travel a long distance. In addition, they meet with the supervisor and management every other Saturday morning to discuss progress and issues and learn together. The supervisor compiles information provided by field officers and prepares weekly reports for management.

The deputy manager's prime responsibility is to oversee and monitor field operations while the manager consolidates all data, prepares reports for company management and maintains contact with the buyers. The FOs are at the centre of MF's field operations; they are supported by trusted contact or lead farmers, who help the FO and coordinate with individual farmers. Each FO is responsible for a certain region during the entire growing season and when MF receives orders from buyers in January-March, it divides them amongst the FOs, taking climate, elevation, soil, etc. into account. The buyers then send their stock seed for distribution to the farmers. As farmers usually demand more seed than is allocated, the FO must decide who is growing what and how much.

The number of outgrowers a FO works with varies substantially – from a minimum of 150 farmers to a maximum of 350. The average is about 200 farmers. During the peak season (March – June) the FOs visit an average of 20 farmers / day. FOs use motorbikes that MF provides and often stay overnight in an area. The amount of time they spend in an area depends on the number of lead farmers available to help them.

Lead farmer selection occurs in two stages (1) MF develops a shortlist of potential candidates in an area and (2) farmers choose one of them as their lead farmer. The lead farmer assists FOs distribute seed and provides advice throughout the growing season on topics such as land preparation, planting, harvesting and cleaning. Lead farmers also communicate with FOs about any production issues and inform farmers of follow-up visits by FOs.

An interesting feature of the MF program is that lead farmer payment is performance-based. If field preparation and seed distribution meet MF performance criteria, lead farmers receive TShs 40,000 (US \$32). Adequate supervision of production, harvesting and cleaning as judged by agreed-upon indicators, earns them another TShs 85,000 (US \$67) earning them a total of TShs 125,000 per season or about US \$100. MF reimburses operational costs such as travelling to MF to deliver monthly reports or the collection and distribution of seeds on an actual-cost basis.

In general, lead farmers and FOs provide individual outgrowers with advice and support rather than using demonstration plots. Instead they advise farmers to visit neighbours experienced in flower seed production to learn from them. Should problems such as diseases arise, lead farmers communicate with the FO (via mobile telephone) who then attends to the problem. If problems cannot be resolved on the spot, the FO takes digital photographs to share with the field supervisor and management. FOs also request advice from MF's buyers and transmit the photos to them.

East African Growers (EAGA) outgrower management system

(Action for Enterprise and Match Makers Ass., 2009, Appendix D, p.D-5f; verbatim citation)

EAGA began exporting fresh vegetables to Europe 20 years ago, taking advantage of opportunities to supply importers with fresh produce outside of Europe's main growing season. Today, EAGA is the largest fresh vegetable exporter in Kenya, exporting roughly 250 metric tons (MT) per week in the high season and close to 100 MT per week in the low season. In addition to vegetables, but not part of this case-study, EAGA also exports fresh tree-crops such as avocados and passion fruit. The vegetables EAGA exports include French beans, fine beans, broccoli, snow peas, sugar snaps, carrots and baby corn.

Outgrowers who currently supply 60% of EAGA's exports primarily grow fine beans, snow peas and sugar snaps. The company's own farms supply the remaining crops and volumes.

EAGA coordinates the overall outgrower activities from its pack-house offices near the Nairobi airport. The operational divisions and their responsibilities with regard to outgrowers include the following:

- Logistics Division:
scheduling transportation of seeds and collection of harvested vegetables.
- Planning Division:
overseeing planting schedules in accordance with orders and anticipated demand, supporting Technical Assistants (TA) and Area Managers (AM), negotiating and signing contracts with outgrowers.
- Monitoring Division:
assuring compliance with GlobalGap standards and those for major supermarkets such as Tesco in the UK.

EAGA is active in two regions and works with 27 outgrowers as individuals and four self-help groups (SHGs), which comprise 10 to 15 small-scale farmers. In each region, EAGA has one Regional Manager (RM) and two Area Managers (AM). The total number of Technical Assistants (TA) is 15, which is approximately one TA for every eight to ten farmers. The primary responsibilities of EAGA field staff are as follows:

- 2 Regional Managers (RM):
material and technical support to AMs and TAs; communication with Nairobi and execution of

planning directives for the region; organization of training and other events with outgrowers.

- 4 Area Managers (AM):
technical support to TAs with weekly visits; execution of area planning activities and planting schedules; report on harvest estimates and timing; recruitment, assessment and contracting of new outgrowers; monitoring of outgrower progress toward compliance with standards.
- 15 Technical Assistants (TA):
technical support to outgrowers; monitoring record keeping of all outgrowers' activities; monitoring and control of pests and diseases; recruitment and assessment of new outgrowers.

EAGA invests heavily in training its outgrowers... The majority of coaching and training comprises one-on-one sessions between outgrowers and TAs during the latter's weekly visits. AMs reinforce TA advice during their periodic visits and TAs provide additional training ... to solve problems as they arise. Outgrowers also get to exchange experiences with other outgrowers in meetings EAGA organizes. For two to three days each year, outgrowers discuss farm management and technical issues and compare approaches to solving particular problems. In addition, EAGA offers a range of technical workshops tailored to farm managers, new outgrowers and on-farm specialists like graders and scouts.

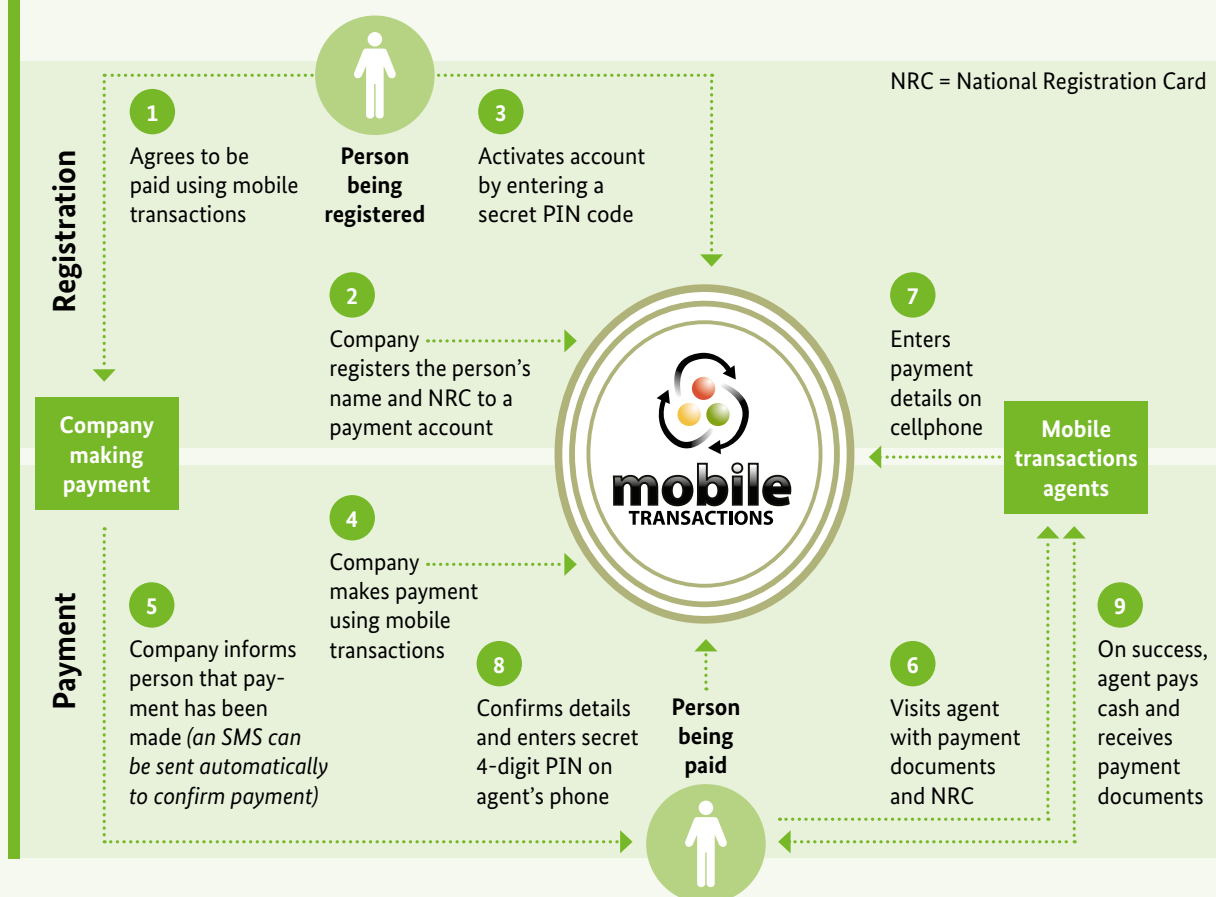
For a detailed description of the CF scheme see the source mentioned above.

Dunavant contract farmer payment through mobile banking

(MTZL cited in: Sen and Choudhary, 2011, p.253;)

Dunavant found it difficult to pay its contract farmers through the field management system on time. The prospect of slow payment from Dunavant caused cash-strapped farmers to sell to local dealers,

even though farmers could earn more from selling to the company ... By partnering with Mobile Transactions, Dunavant can pay farmers instantly using mobile phones and Mobile Transactions' network of agents. Facilitating payments as well as access to finance is a powerful mechanism to link farmers to supply chains.



References

- Action for Enterprise (AFE) and Match Makers Associates (2009): Facilitating the Development of Outgrower Operations: A Manual; USAID; available online at: www.actionforenterprise.org/paper-usaid.pdf
- Eaton, Charles and Andrew Shepherd (2001): Contract Farming: Partnerships for Growth; FAO Agricultural Service Bulletin 145; Rome; available online at: www.fao.org/docrep/014/y0937e/y0937e00.pdf
- International Finance Corporation (IFC/ 2013): Working with Smallholders: A Handbook for Firms Building Sustainable Supply Chains; Washington; available online at: <http://www.ifc.org/wps/wcm/connect/8dc5628042112fdbba2fff494779b2ad/Handbook+-+Working+with+Smallholders.pdf?MOD=AJPERES>
- Sen, Souham and Vikas Choudhary (2011): ICT Applications for Smallholder Inclusion in Agribusiness Supply Chains; in World Bank: ICT in Agriculture Sourcebook – Connecting Smallholders to Knowledge, Networks, and Institutions; available online at: <http://www.ictinagriculture.org/content/ict-agriculture-sourcebook>

2.3.2/ Risk management

For purpose and selected questions cf. CF Handbook Volume I, p.52ff, Box 17 on p.78f, p.80f and throughout the entire document

Purpose

The purpose of managing risks in CF schemes is to find entrepreneurial solutions for not exposing risk-averse resource-poor suppliers to risks that put their livelihoods at danger.

Output

A CF risk management system is developed.

Introduction Risk management

(Contributed by: Margret Will, 2015)

Resource poor farmers do not easily take on added risks that could threaten their livelihood. Besides lack of knowledge and skills for doing farming as a business and often unsupportive framework conditions, vulnerability bears on the willingness and capacities of smallholders to invest into new crops, to adopt innovative technologies and to go for unknown new markets. On the buyer's side, investment risks are also considerable, if the design of the CF business model is not appropriate for committing suppliers to fulfil their contract obligations.

Aiming at realising conjoint investments with smallholders as partners in the CF business, buyers have to find ways of enhancing the capacities of their suppliers to cope with risks. To this end, internal and external risks (see range of risks described in section 2.1.3) of equity and debt-investments into land, inputs, equipment and labour and into the joint CF undertaking have to be assessed and risk management strategies developed. To avoid failure, smallholders interested in joining CF schemes have to learn how to assess risks even before signing contracts. Only if farmers know the potential risks of engaging in a CF scheme and are confident that production, market, contract-related and political risks can be managed, they will be ready to venture into contracts. In general, CF innovations that promise modest increase in incomes and reduced risks are more likely to be adopted by resource-poor farmers than innovations that promise high profits but involve high risks.

Given the high-risk environment and the largely unpredictable risk-exposure, under which small-scale resource-poor farmers have to operate in many developing countries, combined with their low risk bearing capacities (RBC), it is obvious that they cannot cope if risks are not actively and effectively managed and not shared by the buyer as

partner in the CF business. Risk sharing is reflected in contract specifications (e.g. while fixed prices reduce marketing risks for farmers in volatile markets, fixed prices may increase the procurement risk for buyers if prices are low at agreed times of delivery). Whether a small-scale farm or a transnational company, appropriate concepts for risk management have to be in place to sustain the business.

Successful risk management depends on the awareness of potential risks and the regular observation of conditions (Steps 1 and 2 in the graph below) that may foster the occurrence of harmful events. While the first two steps form part of the risk assessment that also informs the decision on whether to venture into CF or not (cf. section 2.1.3), Steps 3 to 5 are about the strategies and tools for mitigating/ reducing or transferring risks or coping with risks:

- **Risk mitigation** is about efforts to prevent negative events, to limit their incidence or to reduce harmful effects (e.g. adopting crop or market diversification strategies, improving pest and disease management strategies).
- **Risk transfer** is about passing on risks to a business partner (e.g. through corresponding contract farming arrangements) or to a third party (e.g. compensation through insurance or financial hedging tools).
- **Risk coping** is about support provided (e.g. by governments through e.g. debt restructuring, remittances, social safety net) to victims of a shock event (e.g. drought, flood or pest epidemic) to better cope with the losses incurred (e.g. resulting in the need to cutting (food) consumption, depleting savings, selling assets such as livestock or borrowing from social networks).

The following graph illustrates the steps to be followed in managing risks.

Steps to be followed in managing risks

(adapted from Kahan, 2013, p.15)



Tool Various risk management tools

(Contributed by: Margret Will, 2015)

Various tools

exist at different levels that can contribute to leveraging counteractive measures:

- At farm or firm level:
e.g. capacity development for introducing good agricultural practices, reducing production and processing unit costs or introducing quality assurance systems;
- At the farm supply-firm procurement interface:
e.g. reduction of transaction unit costs, traceability systems or contract farming arrangements;
- At the level of services:
e.g. market information services that can serve as early warning systems in case of price declines or facilitate the search for more remunerative markets; different types of insurances;
- At the level of framework conditions:
e.g. political support in case of natural disasters, legal provisions for contract enforcement, administrative procedures reducing red tape or upgrading of dilapidated infrastructure.

Traditional formal or informal risk management tools

- Ex-ante technological solutions:
ex ante strategies (embraced before a risk event occurs) can reduce risk (e.g. by eradicating pests) or limit exposure to risk (e.g. use of pest-resistant varieties, of natural predators or plant protection products or application of crop rotation or intercropping practices driving pests off the field).
- Ex-ante hedging solutions:
e.g. precautionary savings (in kind e.g. as livestock or in cash) or membership in social networks (e.g. joint savings available for supporting members in case of shocks).
- Ex-post solutions:
ex-post strategies help coping with effects of risks that have already occurred (e.g. selling assets, looking for transitory employment or migrating; government safety nets in the form of subsidies, public works programs or food aid).

While ex-ante risk management tools cause real and opportunity costs respectively before risks actually occur, ex-post risk management measures only cause costs in the case of risk events. However, when incidents happen, ex-post management measures may be very expensive with regard to real and opportunity costs. If likely risks are well assessed regarding probability of event and related possible effects and ex-ante measures are well designed based on a cost-benefit assessment, investments into ex-ante measures may contribute to decreasing vulnerability and increasing resilience to shocks. On the other side, additional costs for ex-ante measures and weakly designed risk management strategies can contribute to increasing exposure to risks and negative impacts of adverse events.

Selected risk management tools

- Technology tools:
e.g. Low External Input Technologies (LEIT); application of sustainable land use technologies to reduce the degradation of soils and water resources, decrease erosion and mitigate climate change effects; upgrading of production, harvest and post-harvest practices to reduce losses; introduction of information and communication technologies (ICT) for establishing early warning systems on pests and diseases, SMS-based extension services or traceability systems;
- Business tools:
e.g. shift from predominant subsistence orientation to market-based farming systems/ business decision-making; crop or market diversification to reduce dependence on one product or outlet; upgrading of transport and logistics solutions to reduce unit transaction costs and enhance competitiveness;
- Collective tools:
e.g. membership in farmer-based organisations (farmer groups, associations or cooperatives), trader or processor organisations or inter-professional bodies to facilitate collective action (e.g. joint procurement of inputs to enhance negotiation power and reduce unit costs, peer learning, social control, group lending);

- Financial service tools:
e.g. savings and credits, loans as embedded services in contract farming agreements to compensate for inadequate financial sector products; warehouse receipt system insurance services (e.g. disaster insurance, area index insurance);
- Public sector tools:
e.g. upgrading of economic infrastructure and public utilities (e.g. roads, communication, energy and water) to reduce costs of input and output transport and logistics as well as processing; provision of education, training, research and extension as public good to develop coping capacities of vulnerable populations; development of policies and programmes for disaster management, social safety, worker safety and public health.

Assisting poor producers to take more risks

(Norell and Brand, 2013, p. 77f; the document provides detailed explanations)

- Facilitate coaching and mentoring
- Arrange exposure visits with other producers
- Encourage multiple sources of income
- Support participatory research and analysis
- Encourage diversification by specialising across several products
- Promote crops for consumption and for the market
- Promote food consumption for the family and livestock first
- Start with small, low-risk activities
- Connect to markets with low barriers to entry and low risks
- Focus on activities with short-term, frequent returns
- Build on existing resources, skills and behaviours
- Use smart subsidies
- Connect to formal safety net initiatives
- Link to food aid and food transfers for satisfying basic subsistence needs
- Facilitate community-level traditional safety nets

Assisting poor producers to mitigate the problem of limited resources

(Norell and Brand, 2013, p. 78f; the document provides further explanations)

- Be creative with the assets and skills that the very poor do have
- Look for linkages with buyers or suppliers
- Form groups to help access services that currently do not reach them
- Support generation of capital through savings
- Support the utilisation of in-kind rotating schemes (e.g. community-based seed banks or animal banks that support farmers in case of loss with repayments done in assets after harvest or reproduction of livestock)
- Leverage ability to provide and share labour
- Facilitate access to transfer of productive assets
- Facilitate access to vouchers (rather than just taking a hand-out, farmers are empowered to participate in the market since vouchers are to be redeemed for a particular service from particular vendors; e.g. input suppliers)
- Facilitate access to provisions from safety net programmes

Default risks/ moral hazard in contract farming

(adapted from GIZ CF Handbook Volume I, Box 17, p.78f)

Side-selling by farmers (often as a result of poaching by competing traders) is the most cited risk in contract farming. Further procurement risks for buyers are related to non-compliance with contract agreements on qualities and volumes (quotas) and schedules of delivery. Late distribution of inputs by buyers (as embedded service), late collection of produce, (perceived or real) high rejection of produce for quality reasons and late payment are the most cited risks farmers face in CF schemes. Possibilities to reduce moral hazard/default risk are listed in the GIZ CF Handbook Volume I, Box 17, p.78f.

See also:

Risks and risk management in farming and contract farming

Kahan, 2013; Kukeawkasem, 2009; Norrell and Brand, 2013, p.77ff; Schaffnit-Chatterjee, 2010

Template Risk reduction planning tool
(Norell and Brand, 2013, p.77f and 79f; verbatim citation)

Identify solutions to focus on		Identify practical actions	Identify who could act, advocate or support actions
Facilitate coaching and mentoring			
Arrange exposure visits with other producers			
Encourage multiple sources of income			
Support participatory research and analysis			
Encourage specialisation across several products			
Promote crops for consumption and the market			

Identify solutions to focus on	Identify practical actions	Identify who could act, advocate or support actions
Promote food consumption for family & livestock first		
Start with small, low-risk activities		
Connect to markets with low barriers to entry and low risks		
Focus on activities with short-term, frequent returns		
Build on existing resources, skills & behaviour		
Use smart subsidies		

Identify solutions to focus on	Identify practical actions	Identify who could act, advocate or support actions
Connect to formal safety net initiatives		
Link to food aid and food transfers		
Facilitate community-level traditional safety nets		
Other		
Other		
Other		

Case examples Risk management

Risk management by swine producers in Thailand

(Contributed by: Yotsawin Kukeawkasem, 2015)

Market price risks – high probability/ high effects:

Pig farming in Thailand can be either a very lucrative or a very risky business. Due to the lure of profits when prices soar, swine production usually grows rapidly (e.g. in three years only, the number of sows once grew from about 750,000 to more than 1 million), followed by a saturation of the market and collapse of prices. Swine markets are characterised by the so called 'pork cycle' or 'hog cycle' featuring cyclical price fluctuations. The reason is that farmers invest into swine production when prices are high. Given the breeding time, the effect on markets and prices is delayed. After some time, the market becomes saturated, prices decline and farmers reduce production. Again, after some time supplies do not meet demand anymore and prices rise again. The risk probability is rather high and smaller producers are particularly affected and many are forced to exit the business, at least temporarily. In Thailand, many farmers opt for contract farming with packing houses or processors to mitigate the risk.

Natural risks – low probability/ high effects:

Floods have happened in swine production areas twice in the past 15 years causing huge damage. Rescuing animals from flooded farms and relocating are difficult given the need for stalls, feeding and caring systems. Some pigs will drown and the surviving ones will be very susceptible for diseases due to the stress situation. To manage the risk different strategies have been adopted: e.g. lifting up the housing above the ground or moving to higher places, building water proof fencing/ dam. Given the low probability but high effects, however, the best solution would be to develop insurance products covering natural risk events.

Production risk – high probability/ high effects:

The main production risk is the incidence of animal diseases, which is very critical (e.g. foot-and-mouth disease, classical swine fever/ hog cholera, Porcine Reproductive and Respiratory Syndrome and Nipah Encephalitis). Outbreaks of diseases bear on the usually weak financial liquidity of smallholders for continuing farm operations. High interest rates and the limited availability of credit to smallholders, especially during a period of low pig prices and pig diseases outbreaks, threaten the survival of smallholder swine business. Swine farming also requires sufficient workforce

resources. However, farm labour is scarce since many young Thais avoid pig farming due to low wages compared to non-agricultural jobs and to the less than pleasant working environment on pig farms.

Regulatory risks:

Since water pollution caused by agricultural activity, especially also from pig farming, is common in Thailand, the Pollution Control Department issued a pig farm effluent regulation to control pollution at the source. Furthermore, the Thai Department of Livestock Development launched quality and environmental standards in order to improve the quality of domestically produced meat and reducing negative impacts on the environment.

Risk management strategies and tools:

Since decreased output due to swine diseases is quite frequent and damages are high, insurances are not the right solution for risk management since the costs (insurance premium) would be very high. The best options for producers are to specialise and/ or to conclude contracts with buyers providing services including animal husbandry extension and veterinarian services. The study shows that CF can serve as a risk management strategy since it has significantly reduced production and price risks. While contract farmers provide labour, water, electricity, waste management and animal housing, the contractors bear the most important variable costs (and hence the risks) for items such as piglets, feed, medical supplies and technical supervision, which account for around 90% of total production costs. Farmers who improve their pig housing facilities with evaporative cooling systems are normally paid higher prices than those without such systems, thus compensating for investment risks.

Risk management in cotton farming in West and Central Africa

(Peltzer and Roettger, 2013, p.19; verbatim citation)

... the business of buying and selling cotton and securing the price of cotton are linked to significant commercial risks. The advice offered by liberal economists to create instruments that allow farmers to forward sell more easily is problematic, as it exposes farmers to ... economic risks, which are now largely borne by the cotton companies and cotton traders. It rarely makes sense for African smallholder farmers to assume the significant hedging risks on the global commodity markets.

An open question is whether there are solutions to cushion price fluctuations. A refined model was established in Burkina Faso – currently the largest cotton producer in sub-Saharan Africa – with the help of the World Bank and the French development cooperation. In this model, the pre-announced purchase price for cotton is based on the average world market price over the last three years and on forecasted prices. If the market prices are higher than the announced price determined on this basis, a so-called Fonds de Lissage is built; if the prices are below the reference price, this fund pays out a price support (AfdL 2008). The base capital of the Fonds de Lissage was funded by donors. Its management is assured in a very transparent way by a commercial bank, which should exclude mismanagement and corruption, which negatively affected former price stabilisation funds in many WCA [West and Central Africa] countries. A final evaluation of the functionality and effect of the fund will not be possible until several cycles have been completed. The fund was established in 2007 after a previously existing equalisation fund became insolvent having faced a prolonged period of low prices for cotton. From 2008–2010, with sharply rising world market prices, the equalisation mechanism in Burkina Faso initially prevented farmers from benefitting greatly from the increasing world market price, which gave farmers less incentive to grow more cotton during that time. In the 2012/13 season farmers will, however, benefit from the fund payments to stabilise a cotton purchase price higher than the world market price.

A simpler option, which was chosen by several WCA governments, was to directly subsidise the purchase price for cotton or fertiliser prices during phases with low world market cotton prices with budget funds. These were refinanced through donor funds.

Another way to assist farmers to cope with price fluctuation risks is to train them in basic commercial practices – if possible integrated with functional literacy programmes – so that they are capable of optimising their overall operations, which generally entail an average of four to five crops, vegetable farming and small scale trading and tradesmen activities. From a commercial perspective it could then make sense to reduce cotton planting during periods in which low prices are anticipated. However, since cotton is much more resistant to drought than corn, it is always sensible for farmers to grow at least a minimal amount of cotton as part of an adequate insurance strategy for securing their income against weather related risks.

Responding to the risk of side-selling

(Contributed by: Christopher Masara, 2015)

Contracting companies should work with farmer groups as intermediaries. The arrangements are based on a two-stage CF business model, involving a contract between the buyer and the farmer groups and a binding agreement between the farmer groups and their fellow group members. To assure social cohesion and peer control, the farmer group should not have more than 10 to 15, and only exceptionally up to 20 members. Affiliation is promoted through self-selection based on existing relationships and trust, short distance to facilitate regular meetings, understanding of the farming history and willingness and ability to repay debts (this is a key point as farmers who do not repay debts are also potential side marketers and defaulters in CF).

How the system works

- Group lending: Farmer groups should assemble members' requests for loans and then apply for credits. Every season the group sends a loan request to the contracting company, which will be jointly discussed and agreed upon before disbursements. The loan amounts extended to farmers are based on their individual repayment capacities, established on the prospective volumes they can produce. Loans are extended in cash or in inputs.
- Member monitoring: The farmer groups have the mandate to monitor fellow members' fields during the production period. This enables the groups to assess the ability of fellow members to meet contractual obligations or to start working on alternative methods of loan repayment in case of challenges emerging.
- Input distribution and produce collection: The farmer groups receive inputs in bulk and distribute them to fellow members. They also manage delivery of members' produce in bulk.
- Repayment of loans: The farmer groups repay the loan extended by the contracting company in full upon delivery of the produce. Defaulting members are obliged to pay fellow group members later.
- Sanctions: Groups failing to repay loans in full to the contracting company or failing to meet other contractual obligations will be screened out for the following season.

Advantages

- Since the entire group is held responsible for defaulting individual members, the groups are eager to select reliable members and to form strong internal bonds.
- Group self-selection screens out untrustworthy people since farmers are known in the communities.

- Group contracts, bulking of inputs and joint collection of produce will reduce transaction costs.
- Continuous screening of non performing farmer groups by the buyer reduces the default rate in the long run.

Disadvantages

- During the first season the default rate might be high due to poor self-selection at group level or problem farmers forming their own groups.
- Some good farmers might not be keen to work in a group of average farmers (if possible they might form a group of good farmers).

Conclusion

Although it is difficult or almost impossible to weed out defaulters in contract farming with staple crops, experience shows that the default rate can be reduced considerably (in a specific case in maize in Zimbabwe from 30% to 10%).

Adapting CF management in response to emerging CF internal risks

(Contributed by: Margret Will, 2015)

Recognising that the hypothesis on the growth path of the CF scheme and the adoption of new technologies for enhancing yields and improving quality of produce by contract farmers was overestimated, the contractor realised that a better understanding of factors hampering adoption was required. A socio-economic study and additional surveys were implemented to identify entry

points for fostering adoption of innovations, recruiting new contract farmers and retaining existing contract farmers in the scheme:

- gaining a better understanding of the farming systems and farm/ household economics and identifying the real cost-benefit of proposed innovations to better understand incentives/ disincentives motivating/ demotivating farmers and develop persuasive arguments for promoting new technologies;
- strengthening the capacities of field advisors (technical skills including basic agricultural practices and farming as a business as well as soft skills such as communication and adult learning to improve the efficiency of embedded extension services);
- improving the communication with contract farmers through a revision of the embedded service system (improved training and closer follow-up in the field) and training of field advisors through a more formalised/ non-physical 'training centre' to complement the training on the job;
- improving the efficiency of operations from the field to the plant gate (in the sense of 'lean management' along the supply chain) in response to the need for tailor-made planning of field operations for different production regions;
- strengthening farmer groups to achieve scale economies and reduce transaction costs by improving cohesiveness as well as enhancing joint management of collection facilities, peer recruitment, peer learning and peer control (especially regarding compliance with contract obligations).

References

- Balmed (2013): Business presentation - Risk Analysis: Mitigation and Rewards; p.46f; available online at: http://www.balmed.org/images/downloads/BHL_balmed_business_presentation_2013.pdf
- Hanson, James et.al. (n.d.): Risk and Risk Management in Organic Agriculture: Views of Organic Farmers; available online at: <http://ideas.repec.org/p/ags/umdrwp/28551.html>
- Kahan, David (2013): Managing Risk in farming; FAO Farm Management Extension Guide 3; first printed: 2008; Reprint: 2013; ISBN 978-92-5-107543-2 (print); W-ISBN 978-92-5-107544-9 (PDF); available online at: <http://www.fao.org/docrep/011/i0412e/i0412e00.htm>
- Kukeawkasem, Yotsawin (2009): Risk Attitudes and Risk Management Strategies of Swine Producers in Thailand; Farming & Rural Systems Economics Vol. 109, edited by Werner Doppler and Siegfried Bauer; Margraf Publishers, Weikersheim/ Germany; ISBN 978-3-8236-1580-4; ISSN 1616-9808; Abstract available online at: http://www.tropentag.de/2009/abstracts/links/Kukeawkasem_FMNBDKpG.pdf
- Norell, Dan and Margie Brand (2013): Field Guide: Integrating Very Poor Producers into Value Chains – Field Guide; Second Edition; on behalf of World Vision, fhi360 and USAID; available online at: <https://www.microlinks.org/library/integrating-very-poor-producers-value-chains-field-guide>
- Peltzer, Roger and Daniela Roettger (2013): Cotton Sector Organisation Models and their Impact on Farmer's Productivity and Income; German Development Institute (GDI/ DIE) Discussion Paper 4/2013; available online at: <http://www.die-gdi.de/discussion-paper/article/cotton-sector-organisation-models-and-their-impact-on-farmers-productivity-and-income/>
- Schaffnit-Chatterjee, Claire (2010): Risk management in agriculture: Towards market solutions in the EU; Deutsche Bank Research; September 17, 2010; available online at: http://www.dbresearch.de/PROD/DBR_INTERNET_DE-PROD/PROD000000000262553/Risk+management+in+agriculture%3A+Towards+market+solutions+in+the+EU.pdf
- Sjaauw-Koen-Fa, August R. (2012): Co-operatives - a Key for Smallholder Inclusion into Value Chains – Framework for an Inclusive Food Strategy; Rabobank; available online at: <https://www.rabobank.com/en/images/framework-for-an-inclusive-food-strategy.pdf>

3/ Selected tools for 3rd party support to contract farming development

It is obvious that contract farming offers opportunities for overcoming market access barriers for farmers and procurement constraints for buyers. However, **prevailing market imperfections** often impede the development of trustful and long-term farmer-firm business linkages in many developing countries. The reasons are manifold and lie both in the private sector (e.g. due to low productivity, lack of scale economies, asymmetric information, inequalities in ownership and voice and resulting mistrust) and the public sector (e.g. due to inadequate economic and rural development policies, poor public infrastructure, inappropriate market regulations, unforeseeable market interventions, slow administrative procedures and resulting overall weak investment climate). As a consequence, CF business start-up costs, unit production and transaction costs as well as post-harvest losses are high and products cannot compete in regional and international markets and often even not with growing imports in local markets. **In this setting, CF development is a risky and costly venture for farmers and buyers.**

At the same time, national governments and development partners start to **recognise inclusive business models** as engine for socially inclusive economic growth. Unlike Corporate Social Responsibility, which primarily aims at improving the company's reputation through societal contributions and philanthropy, the main objective of inclusive business models is to integrate poor sections of the population either as customers or as suppliers into viable business models and, by doing so, to increase the economic and social benefit for all business partners involved. Governments, development partners and NGOs may therefore be interested to support the development of inclusive growth through inclusive CF business model development.

Yet, the integration of resource-poor small-scale farmers into CF schemes usually bears considerably on the buyer's management and technical capacities, its financial assets and liquidity given the often considerable need for upgrading the capacities of smallholders. Support needs range from technical and managerial skills development to organisational strengthening and financial support (cf. capacity development needs assessment in section 2.1.6). Recognising that necessary investments into upgrading supplier networks affects the buyers' competitiveness in the end, public or private sector organisations, development partners or NGOs may decide to provide assistance for initiating and starting up promising CF ventures as well as upgrading and scaling up existing CF business models. An important objective in doing so is to promote the inclusiveness of contract farming arrangements. By doing so, well-designed 3rd party support may contribute to shorten the time usually necessary for starting up, consolidating and scaling up CF schemes up to reaching break even and sustainability (at least three years, more likely five and very often more years; cf. Ganguly, 2013, p.20ff/ Graph p.27). However, this can only be achieved if support is based on sound analysis, appropriate CF business models and realistic CF business planning as well as the principles for 3rd party support mentioned in the tool below.

Support to contract farming development may include the moderation of CF development processes as well as technical or financial assistance for upgrading the capacities of farmers, farmer based organisations, buyers and/ or intermediaries, of private and public providers of CF business development services (BDS) as well as of policy decision makers if the CF business climate needs to be improved.

3rd party support for the development of inclusive contract farming schemes

For purpose and selected questions cf. CF Handbook Volume I, p.38ff

Purpose

3rd parties (governments, public and private sector organisations, development partners and NGOs respectively) successfully support farmers and buyers to bridge the knowledge and financial gaps between current farming and marketing practices and mutually beneficial trust-based inclusive contract farming ventures.

Specific objectives are to support the development of CF arrangements that contribute to (cf. GIZ CF Handbook Volume I, p.27):

- realising sound analyses and business planning as precondition for the design of viable and inclusive CF schemes;
- improving the economic viability and social inclusiveness of CF schemes;

- developing the capacities of farmers to negotiate contracts (scope of negotiation);
- ensuring fair give-and-take relations with reasonable rewards (cost-benefit-‘plus’) for suppliers and buyers;
- developing solutions for shared ownership and shared risks according to the divergent capabilities of both contract partners; and
- building capacities to support the adoption of innovations (technical, managerial, organisational) with a view to stimulating increased farm productivity and chain efficiency.

Output

Strategies and action plan for supporting inclusive CF arrangements.

Tool Principles for CF facilitation

(Contributed by: Margret Will, 2015)

General principles for CF facilitation

cf. GIZ CF Handbook Volume I, p.38

- With contract farming first and foremost being a private sector activity, facilitators have to **leave the driver’s seat to farmers and their contract partner** as they bear the investment risks and they have to take business decisions on their own.
- **A business, participatory and action-oriented bottom-up approach** is the most appropriate methodology for 3rd party support since the transformation to inclusive CF depends on the commitment of and has to be managed by farmers and buyers as partners in business.
- Aspiring to support the development of inclusive CF to achieve broad-based impact, 3rd party facilitators have to plan for **adequate resources and a sufficient time horizon** for their assistance and have to develop and communicate a **clear exit strategy** from the very beginning.

following principles (see original document for further explanations):

- Respect the company’s experience and knowledge
- Establish credibility regarding the competence of the development organisation in CF support
- Develop an appropriate memorandum of understanding (MOU) with companies
- Do not undertake the role of intermediary or negotiator
- Develop professional relationships with the company staff
- Assist in the development of the right incentives for compliance
- Structure appropriate cost-sharing formula between the company, the farmers and the development partner
- Support capacity development to strengthen the competitiveness of the final products of the CF scheme
- Monitor agreements with the company

Guiding principles for CF facilitation by development organisations

(Action for Enterprise and Match Makers Ltd. (2008), p.61ff; largely verbatim citation)

Development organisations are recommended to agree on collaborative arrangements with the companies they intend to support guided by the

See also:

Typical mistakes development organisations make (while helping companies develop outgrowing operations)

(Action for Enterprise (2014), Appendix 10, p.37/ Appendices)

Template Assess support needs for enhancing profitability and competitiveness of CF as incentive for participation and compliance

(Contributed by: Margret Will, 2015) for capacity development needs cf. section 2.1.6

Success factors for CF as an inclusive business	Brief assessment of the current situation (SWOT of the status of CF performance re the success factor)	Brief description of needs for upgrading (mention stakeholders requiring support and type of support required)
Profitability at the farm level (cost-benefit)		
Profitability at the firm level (cost-benefit)		
Profitability at the intermediary level (cost-benefit)		
Access to innovations (technical, economical)		
Scale economies (e.g. joint action via FBOs)		

Success factors for CF as an inclusive business	Brief assessment of the current situation (SWOT of the status of CF performance re the success factor)	Brief description of needs for upgrading (mention stakeholders requiring support and type of support required)
Transaction costs of the CF scheme		
Competitive-bench-marking		
Potential for market growth		
Other related areas requiring upgrading		

Template Assess support needs for reducing risks for inclusive CF business development

(Contributed by: Margret Will, 2015) for risk assessment and risk management needs cf. sections 2.1.3 and 2.3.2)

Success factors for CF as an inclusive business	Brief assessment of the current situation (SWOT of the status of CF performance re the success factor)	Brief description of needs for upgrading (mention stakeholders requiring support & type of support required)
CF external risks that can usually not be controlled by CF partners		
e.g.: <ul style="list-style-type: none">• Natural risks• Market related risks• Service related risks• Institutional/political risks• Security risks		
CF internal risks that can usually be controlled by CF partners/ generic value chain risks		
e.g.: <ul style="list-style-type: none">• Production risks• Procurement risks• Transport/ logistics risks• Processing risks• Financial risks• Marketing risks		
CF internal risks that can usually be controlled by CF partners/ specific CF business risks		
e.g.: <ul style="list-style-type: none">• CF business model risks• CF contract risks• CF management risks• CF financing risks• Labour force risks		
Overall CF capacities		
	for assuring inclusiveness in a period of downturn due to any type of risk	

Template Assess support needs for strengthening service delivery and partnerships for CF development

(Contributed by: Margret Will, 2015); for service needs assessment cf. section 2.1.3 and section 2.1.6, for institutional approaches to CF support cf. CF Handbook Volume I, p.40

Success factors for CF as an inclusive business	Brief assessment of the current situation (SWOT of the status of CF performance re the success factor)	Brief description of needs for upgrading (mention stakeholders requiring support & type of support required)
Availability of and access to external CF business development services (BDS)		
<ul style="list-style-type: none"> • Information services (e.g. on markets, technologies) • CF Business planning and management services • Agricultural extension and advisory services (e.g. for productivity enhancement, risk mitigation/ management) • Training services (various topics) • Others 		
Availability of and access to external CF financial services		
<ul style="list-style-type: none"> • Financial services for short, medium and long-term financing needs of farmers • Financial services for short, medium and long-term financing needs of buyers • Financial services for short, medium and long-term financing needs of the CF 		
Private-public partnerships		
e.g.: <ul style="list-style-type: none"> • Public-private dialogue on inclusive CF • Innovation system/ innovation platforms • UNIDROIT general principles of contract law (see references below) • Dispute settlement mechanism (mediation, arbitration) 		
Private sector partnerships		
<ul style="list-style-type: none"> • Subsector advocacy (e.g. inter-professional bodies, associations) • Pre-competitive services (e.g. associations, BDS) • Code of Conduct (CoC)/ Code of Practice (CoP) for CF • Dispute settlement mechanism (mediation, arbitration) 		

Template Assess support needs for improving the CF business/ investment climate (sovereign responsibilities)

(Contributed by: Margret Will, 2015); cf. GIZ CF Handbook Volume I, p.39; see also “reducing risks” above

Success factors for CF as an inclusive business	Brief assessment of the current situation (SWOT of the status of CF performance re the success factor)	Brief description of needs for upgrading (mention stakeholders requiring support and type of support required)
CF relevant macro-economic policies		
<ul style="list-style-type: none">• monetary (e.g. exchange rates, inflation)• fiscal (e.g. tax burden or tax incentive programmes)		
Policy coherence across government departments and agencies		
e.g. agricultural, industry, trade, investment, financial and infra-structure, health and education policies		
CF relevant economic infrastructure		
e.g. roads, communication, irrigation, public utilities such as water and energy supply		

Success factors for CF as an inclusive business	Brief assessment of the current situation (SWOT of the status of CF performance re the success factor)	Brief description of needs for upgrading (mention stakeholders requiring support and type of support required)
CF relevant social infrastructure		
e.g. basic and higher education, research and development for innovation		
CF relevant laws, regulations, standards		
e.g. contract laws, land tenure legislation, quality or environmental standards		
Contract enforcement capacities		
primarily mediation or traditional forms of dispute resolution; secondly arbitration mechanisms; thirdly judicial system		
General agribusiness or CF promotion programmes		
e.g. specific grant and subsidy programmes		

Template Identify 3rd party stakeholders that can support the development of contract farming as an inclusive business

(Contributed by: Margret Will, 2015)

Stakeholders	Describe potential roles in CF support (see above: needs for upgrading)	Assess capacities for CF support (SWOT regarding needs for upgrading)
Public:		
Private:		

Stakeholders	Describe potential roles in CF support (see above: needs for upgrading)	Assess capacities for CF support (SWOT regarding needs for upgrading)
Civil society/ NGOs:		
Development organisations:		

Case examples 3rd party support to inclusive contract farming development

Roles for third parties in contract farming that can contribute to inclusiveness and sustainability

(Silva and Rankin, 2014, p.14; verbatim citation)

The engagement of Non-governmental Organizations (NGOs), development organizations and other third-party players is often a feature of CF schemes in developing countries. Traditionally, they assume active facilitation roles in areas such as coordinating farmers and matchmaking between buyers and producers when a CF operation is in the planning stages; financing intermediation; and resolution of conflicts. These traditional roles are clearly relevant for both the initiation and the longer-term sustainability of CF operations. ... In addition to these more traditional roles, the cases include relatively newer areas of activity for third parties that are becoming more present in contractual relationships between farmers and firms. One of these areas is third-party quality certification, as exemplified by the independent grain testing system reported in the case of Argentina. As quality-dependent price determination is one of the known sources of conflicts in CF operations, the engagement of a neutral party can be helpful in promoting transparency in payment systems and in minimizing disputes.

Supporting the development of a national contract farming strategic framework for Zimbabwe

(Contributed by: Christoph Pannhausen, GIZ Zimbabwe, 2015)

In Zimbabwe, contract farming operates in a challenging business environment, characterised by limited access to finance by both contractors and farmers. The main reasons are: the perceived high risk of the agricultural sector and low liquidity; an ineffective legal and regulatory framework; and a high incidence of disputes between contractors and farmers due to poor enforcement of contract farming agreements, among other factors.

To address these challenges, the Ministry of Agriculture, Mechanization and Irrigation Development (MAMID) analysed contract farming in Zimbabwe by organising a series of multi-stakeholder workshops. Based on the findings that were summarised in a study, MAMID drafted a Contract Farming Strategic Framework that was discussed in a consultative stakeholder workshop to obtain further inputs. The document addresses and provides guidelines for, among other things, the following critical issues: contract models and type, suitability of commodities

for contract farming, organisation and selection of farmers, specification of contract farming agreements, financing of contract farming, management of contracts and provision of technical support, enforcement of contracts and dispute resolution.

The GIZ Food Security & Agriculture Project (AISP III) has supported the process through conducting consultative workshops and contract farming training for various stakeholders. Moreover, many aspects of GIZ's Contract Farming Handbook (Volume I) fed into the development of the strategic framework.

The importance of an enabling environment for the sustainability and inclusiveness of contract farming

(Silva and Rankin, 2014, p.16; verbatim citation)

The improvement of enabling environments for agribusiness development is being increasingly seen as an effective policy lever to promote agro-based investments, economic growth and the associated developmental outcomes, including those involving CF schemes ... The cases ... show that a conducive enabling environment was indeed key to spurring and upholding CF operations. Not only can the policies, incentives and regulatory frameworks set in place by the public sector promote contracting in general and inclusiveness in particular, but they may also support the transition of resource-constrained smallholder farmers to more technified and formalized farming businesses. Yet, non-ideal investment climates are not necessarily a binding constraint to agribusiness investments, including those made in CF operations, as the case of basmati rice in India illustrates. In that case, operational flexibility and non-conventional contractual clauses could help circumvent problems that appeared when the legal and regulatory framework was shown to be restrictive to CF, i.e. a mandatory requirement existed for farmers to sell their products to commission agents (CAs) through wholesale grain markets. To fulfil its procurement needs, the contracting company engaged with the CAs and with a large rice processor, in this way liaising with farmers indirectly. This allowed a CF operation to exist even in the absence of conditions for direct purchases by the firm. Moreover, the contracts do not have an exclusivity clause, allowing farmers to sell outside the contractual bond. The case suggests that when working creatively under restrictive normative settings, firms can build the flexibility needed for their contracting business to succeed.

Promoting inclusiveness through tax incentives and certification

(Silva and Rankin, 2014, p.8; verbatim citation)

[Contract farming] is a key element in the biodiesel programme of [Brazil]. The programme explicitly promotes the inclusion of smallholders in biodiesel supply chains by offering incentives to firms that, among other commitments, agree to purchase a certain percentage of their raw material needs from this class of producers. The relationship between farmers and the biodiesel industry is regulated by a certification scheme called the Social Fuel Seal. Besides providing access to tax incentives, the seal allows companies to sell biodiesel through exclusive auctions organized by the Brazilian National Program for the Production and Use of Biodiesel (PNPB), which represents 80 percent of the trade for this product in the country. Some 109 000 small-scale farmers have signed contracts with companies under this scheme, with clauses that establish, among others, price determination methods, product quality specifications, technical assistance provision commitments by the contracting firms, and issues related to contract initiation and termination.... Impact studies suggest that the programme is benefiting smallholders through increased incomes and marketing risk reduction. Firms also benefit by the preferential market access and tax incentives. The chapter suggests that the strong public sector intervention, although essential for the success of this experience and although typical of bioenergy programmes, creates bureaucratic compliance costs for the participating companies and introduces a high level of vulnerability to policy changes and revisions of the regulatory framework. Yet the case illustrates the importance of political will in the promotion of market access for smallholders. By linking this goal with the policy of promoting alternative sources of energy, Brazil has effectively created attractive opportunities for inclusive supply chain development.

The Belgian Code of Conduct for fair trading practices

(UNIDROIT, 2014, p.6; verbatim citation)

... the role that inter-professional chain consultations can play in developing a much-needed rebalancing of power in the food chain, resulting in mutual benefits by increasing the transparency of individual contractual negotiations between operators. To be successful, these consultations must be a voluntary initiative of the concerned representative professional organizations of the agro-food chain at the national or international level. However, governments can create

an enabling environment to start this type of discussion, to set the agenda for this type of discussions by developing guides and frameworks, and to develop necessary legislation on unfair trading practices. In the Belgian context, inter-professional chain consultations led to the formulation of nine overarching recommendations on fair trading practices, four of which deal with or have implications for contract practice. After this top-level effort, attention then turned to developing more detailed, sector-specific guidelines based on identified elements which were determined to be crucial in contract practice for that sector. The framework is the result of a periodically negotiated, win-win process involving all relevant parties.

Mediating negotiations, supporting dispute resolution, establishing arbitration mechanisms

(Silva and Rankin, 2014, p.12; verbatim citation)

In some contracts, dispute resolution mechanisms were also identified and the use of third-party bodies promoted to reduce the likelihood of litigation. In Brazil, the use of a third-party intermediary (i.e. an official representative body such as a trade union) to mediate the negotiation phase between farmers and the company prior to contract signing is likely to reduce the potential for non-compliance from the outset, as all parties are well informed of their respective obligations. Along the same lines, a key conclusion put forward by the author of the barley case in Argentina is that the mere existence of a private arbitration, mediation and grain quality inspection institution (Cámara Arbitral) is likely to deter opportunistic behaviour, yet can also be called upon effectively to resolve disputes if they arise. While other contracts, such as the poultry case from Bangladesh, did not specify clauses associated with penalties for non-compliance, the locally integrated nature of the contractor in the community meant that it could rely on informal social norms such as reputational risk to reduce the likelihood of non-compliance and need for penalties or formal dispute resolution mechanisms.

Assisting farmers in contract negotiations

(KENFAP, 2010; largely verbatim citation)

To reduce the high processing costs, East Africa Breweries Ltd has decided to replace barley with sorghum. The Kenya Agricultural Research Institute (KARI) developed a specific sorghum variety that is suitable for the brewery industry. The Ministry of Agriculture, through the 'Agribusiness promotion programme' (a donor funded project) procures the seed and ensures

that this seed is distributed to the farmers. The seed is subsidized. The Ministry has asked companies to express their interest to distribute the sorghum seed to the farmers. ... Farmers who receive the seed have to sign a contract with East Africa Breweries Ltd. ...

KENFAP staffs at headquarters together with coordinators at district level have studied the ... contract section by section. They checked whether farmers' interests have been taken into consideration. They discovered some sections they want to discuss with farmers, to verify whether these are fair or not. ... Farmers are to express their own view as to what they want to see in the contract. Hence farmers are not given KENFAP's opinion on the sections they identified as problematic. Objective is to develop farmers' attitude to question contracts, negotiate the terms and at least sign two copies in order to keep one for themselves.

Technical support, organisational development and an enabling environment for inclusive CF development

(Silva and Rankin, 2014, p.6; verbatim citation)

Chapter 7 ... presents the clear benefits for smallholders in Honduras engaged in contracting for the organic cocoa export market. Responding to the demands of Swiss consumers for increased sustainability and transparency in the sourcing of raw materials, since 2008 an international buyer in the Swiss market has signed a direct supply contract with the Honduran Association of Cocoa Producers ... The supply contract is designed to source organic cocoa from more than 500 producers under a pilot scheme supported by local and international ... NGOs. Despite the ideal climatic conditions for the production of cocoa in northern Honduras, ... the sector has experienced the devastating effects of natural disasters and high levels of price fluctuation. However, recent redevelopment efforts within the sector have paid particular attention to training producers in organic production, and the unique taste properties of cocoa varieties produced in Honduras are beginning to be recognized as desirable for servicing high-value retail markets. Farmers ... receive technical support to improve production quality, build up drying and fermentation infrastructure and acquire third-party certification (organic, fairtrade). In addition, access to credit and ex-ante export guarantees are provided that help to reduce risk and increase commitment to organic production. To date, the pilot scheme has delivered concrete benefits to smallholders, including increased income and a secured market for organic products with strong potential for expansion of the scheme.

The author identifies several internal and external success factors that have helped to make the contract system successful. These include the long-term vision of the company to establish a transparent supply chain for high-grade organic cocoa that treats farmers as genuine partners and meets the demands of consumers for sustainability; the key role of the producers' association in consolidating volumes and monitoring product quality; and the creation of an enabling environment for sector development supported by a number of local and international public and private sector actors.

Supporting capacity development for farmers

(Contributed by: Liberty Murwira and Christopher Masara, GIZ Zimbabwe, 2015)

Northern Farming is a Zimbabwean company, which provides inputs, working capital and technical advice to contracted smallholder and large scale commercial farmers to produce maize, soybean and wheat since 2009. In 2013, after a contract farming workshop organised by GIZ, the Food Security & Agriculture Project (AISP III) and Northern Farming agreed on assistance in facilitating the expansion of the company's smallholder contract farming programme. Key challenge of contract farming operations was low loan repayment (the best repayment rate until 2013 was 70%). Hence, the major areas of cooperation were to improve knowledge and skills of individual smallholders in CF management; to improve knowledge and skills of smallholders in farming as a business concepts as well as in good agricultural practices; and to improve institutional structures of farmer groups in managing contract farming as a common business.

Several trainings were held with Northern Farming field extension officers and group leaders who cascaded knowledge and skills acquired to smallholder farmers via CF working groups. By the end of the 2013/14 season there had been some remarkable improvements in farmers meeting their contractual obligations and engaging with farming business issues. The level of accountability of farmer groups towards farmers and Northern Farming had also improved. Farmer groups are now responsible for selection and screening of members, approval and submission of group members' loans, distribution of inputs and collection of produce, to mention a few. Furthermore, the loan repayment improved and in two new districts, farmer groups achieved a loan repayment of over 90%.

Smallholder farmers and Northern Farming attributed this improvement to an appreciation of the commercial business culture by smallholder farmers who embraced good agricultural practices to increase volumes and improve quality as well as an understanding of business management concepts and group development for better member-oriented services and cohesion. Farmers also acknowledged that Northern Farming improved its approach in working with smallholder farmers. The company engaged in

improving embedded services in further areas, which were challenging smallholders in their effort to meeting contractual obligations, namely: timely delivery of the right inputs, additional investments into essential equipment (e.g. rain gauges as tool supporting decisions on farming activities and knapsack sprayers for applying pesticides and herbicides), land selection, soil sampling and testing. In light of this, the company and farmers had now adjusted their way of doing business to create a win-win situation for all.

References

- Action for Enterprise (2014): Tools and Methodologies for Collaborating with Lead Firms: A Practitioner's Manual; prepared for USAID; available online at: https://www.microlinks.org/sites/default/files/resource/files/AFE_LF_Handbook_final_3.24.14_1.pdf
- Action for Enterprise and Match Makers Ltd. (2008): Facilitating the Development of Outgrowing Operations: A Manual; prepared for USAID; produced under: The FIELD-Support LWA; available online at: <http://www.actionforenterprise.org/paper-usaid.pdf>
- Ganguly, Ujjal (2013): Contract farming: Can it be a vehicle for inclusive growth? Review and synthesis of various case studies on contract farming in India; commissioned by the International Institute for Rural Reconstruction (IIRR) and the Ford Foundation; available online at: <http://www.vlsa.gsl.org/sites/default/files/gla/document/Final%20Report-CF%20-%202013.pdf>
- KENFAP (Kenya National Federation of Agricultural Producers; 2010): Progress contract farming study; available online at: <http://www.esfim.org/wp-content/uploads/201012-KENFAP-contract-farming.pdf>
- Peltzer, Roger and Daniela Roettger (2013): Cotton Sector Organisation Models and their Impact on Farmer's Productivity and Income; German Development Institute (GDI/ DIE) Discussion Paper 4/2013; available online at: <http://www.die-gdi.de/discussion-paper/article/cotton-sector-organisation-models-and-their-impact-on-farmers-productivity-and-income/>
- Silva, Carlos A. da and Marlo Rankin (2014): Contract farming for inclusive market access: Synthesis and findings from selected international experiences; in: Silva, Carlos A. da and Marlo Rankin (2014): Contract farming for inclusive market access; FAO; available online at: <http://www.fao.org/3/a-i3526e.pdf>
- UNIDROIT (International Institute for the Unification of Private Law; n.d.): Preparation of a Legal Guide on Contract Farming; website: <http://www.unidroit.org/work-in-progress-studies/current-studies/contract-farming>
- UNIDROIT (2014): Contract Farming Today, the Right Equilibrium ...; Workshop organized by the World Farmers' Organization (WFO) and the International Institute for the Unification of Private Law (UNIDROIT); Buenos Aires, 25 March 2014; available online at: <http://www.unidroit.org/english/documents/2014/study80a/wg03/s-80a-wg03-18-e.pdf>

4/ Contract farming case writing

Purpose

The purpose of this tool is to document real-life contract farming cases in order to:

- assist practitioners translate the guidance given in the CF handbook into work routines;
- explore causalities between CF business model strategies and success or failure respectively;
- derive principles that could guide planning for successful CF development;

- assess the cost-benefit and impacts of investments into CF development;
- add country-specific cases to training and extension materials.

Output

Explanatory case studies serving country-specific case examples for use in trainings and advisory services.

Template **Contract farming case writing**

(Contributed by: Margret Will, 2015)

This template serves as support material for the following sections:

2.1.4 Farm and firm business model analysis

2.2.1 Contract farming business model

Contract farming case example

Author											Date
A. Basic information on the CF scheme											
Country and location											
CF product											
CF starting year											
CF target market/s (tick several if applicable)	Local	<input type="checkbox"/>	National	<input type="checkbox"/>	Regional	<input type="checkbox"/>	South-South	<input type="checkbox"/>	South-North	<input type="checkbox"/>	
CF business model (tick several if transitional)	Informal model	<input type="checkbox"/>	Intermediary model	<input type="checkbox"/>	Multipartite model	<input type="checkbox"/>	Centralised model	<input type="checkbox"/>	Nucleus estate model	<input type="checkbox"/>	
B. Short history of the CF scheme (reason for starting the CF, development path to date)											
C. The CF buyer											
Company name											
Affiliations (if applicable)											
Legal form											
Founding year											
Location	Head office:										
	If applicable, country office:										
	If applicable, closest office to CF location:										
No. of permanent staff	Overall company staff		Administration		Processing		Trade		CF field staff		
No. of seasonal workers	Overall seasonal		CF field workers								
	Size of own estate (ha)										
If nucleus estate model (tick several if relevant)	Main purpose of own estate:		Raw material supplies	<input type="checkbox"/>	Research	<input type="checkbox"/>	Demonstration	<input type="checkbox"/>			
	Other, namely ...										

D. The CF farmers

Locations	Small-scale farmers			Medium-scale farmers			Large-scale farmers		
Typical farming systems	Average farm size (ha)			Average farm size (ha)			Average farm size (ha)		
	Typical product-combinations			Typical product-combinations			Typical product-combinations		
	Main staple/ livestock			Main staple/ livestock			Main staple/ livestock		
	Small-scale farmers			Medium-scale farmers			Large-scale farmers		
Farmers under CF	No. contract farmers			No. contract farmers			No. contract farmers		
	Contracted area (ha)			Contracted area (ha)			Contracted area (ha)		
	Start of CF operations in year								
History of contracted area	1 st year			2 nd year			3 rd year		
	5 th year			6 th year			10 th year		
	Start of CF operations in year								
History of no. of contracted small-scale farmers	1 st year			2 nd year			3 rd year		
	5 th year			6 th year			10 th year		
	Individual farmers						Informal/ social groups ¹⁷		
	No. of farmer groups						Formal groups ¹⁸		
In case of informal or formal groups	Average no. of members/ group						Weaknesses		
Farmer selection criteria									
Farmer selection system (tick several if relevant)	Track record						Farmer-to-farmer		
	Recommended by:			Extension service			Community leaders		
						Other			

¹⁷ Registered with social services and similar authorities for non-commercial objectives (e.g. community based organisations, common interest groups)

¹⁸ Registered as legal entity with commercial non-profit or profit objectives (e.g. associations, cooperatives, company Ltd.)

E. Contract specifications (for explanations see CF Handbook, Volume I, Box 17, p.75ff)

Contract duration	
Quality	
Quantity and procurement schedule	
Production (e.g. Good Agricultural Practices)	
Harvesting/ slaughtering and delivery	
Pricing/ pricing mechanism	
Payment conditions	
Embedded services (support) provided	
Dispute settlement	
Registration, if applicable	

F. CF business model (for explanations/ contents see section 2.4.1 Tool: CF Business Model Canvas)
(adapted by the author from: Lundy et.al., 2012, p. 40ff, adapted from: Osterwalder and Pigneur, 2010)
In interviews: if possible, use moderation cards to facilitate the discussion/ visualisation of the business model. It is likely that the canvas becomes a takeaway for the interviewees.

8. Key partners	7. Key activities	2. Value Proposition	4. CF supplier-buyer relationship*	1. CF market requirements
			3. CF infrastructure/ logistics	
9. Cost structure	5. Revenue streams			

.....
* Use separate page for charting out collaborative links / communication flows.

References

- Case Centre (n.d.): An introduction to the case method - What is a case?
Website:
<http://www.thecasecentre.org/educators/casemethod/introduction/whatis>
- Lundy, Mark, Gertjan Bexc, Nancy Zamierowski, Alexandra Amrein, Jhon Jairo Hurtado, Erika Eliana Mosquera, Fernando Rodríguez (2012): LINK methodology: A participatory guide to business models that link small holders to markets; International Center for Tropical Agriculture (CIAT), Cali, Colombia; available online at:
http://dapa.ciat.cgiar.org/wp-content/uploads/big-files/2012/LINK_Methodology.pdf
- Osterwalder, A. and Y. Pigneur (2010): Business Model Generation – A Handbook for Visionaries, Game Changers, and Challengers; only preview (2009) available online at:
http://www.businessmodelgeneration.com/downloads/businessmodel-generation_preview.pdf

5.1/ Case studies: CF Business Model Canvas

5.1.1/Thailand/ Seed rice

Case example Thailand seed rice contract farming scheme

Author

Yotsawin Kukeawkasem

Date

January 2015

A. Basic information on the CF scheme

Country and location	Thailand/ Suphanburi									
CF product	Rice seed									
CF starting year	1997									
CF target market/s (tick several if applicable)	Local	<input checked="" type="checkbox"/>	National	<input checked="" type="checkbox"/>	Regional	<input type="checkbox"/>	South-South	<input type="checkbox"/>	South-North	<input type="checkbox"/>
CF business model (tick several if transitional)	Informal model	<input checked="" type="checkbox"/>	Intermediary model	<input checked="" type="checkbox"/>	Multipartite model	<input type="checkbox"/>	Centralised model	<input checked="" type="checkbox"/>	Nucleus estate model	<input type="checkbox"/>

B. Short history of the CF scheme (reason for starting the CF, development path to date)

Thailand is the world major rice exporter. Thai rice farming area shared 63% (10.36 mil. Ha) of total agricultural land in Thailand with an average yield of 2.69 t/ha (FAOSTAT, 2010). Thailand demands rice seeds about 1 million ton a year, of which provided by government research institution (10%), private company (30%) and own maintained seeds (60%). Therefore, there is a great market potential for high quality rice seeds which are able to respond to farmer and market needs i.e. improved yield, pest-, drought- and flood resistance, etc.

Suphanburi is a major rice producing province in the central plain of Thailand. Hia Chai was a rice trader in the province for many decades. Since 1997, however, Khun Nitat (Hia Chai's son) had changed the family business as rice trader to rice seeds producer with the brand name of Hia Chai. Nowadays, Hia Chai is a well-known authorized rice seed producer nationwide.

Hia Chai produces high quality rice seeds ca. 15,000 ton a year under informal contract farming (without written agreement) with about 250 farmers covering ca. 1,300 ha in the vicinity. In supplying high quality rice seeds, Hia Chai produces all seedlings with modern technique in own farmland and replants in contracted farm land by specified transplanting teams. The transplanting teams are contracted farmers who have many years of CF experiences with Hia Chia and they are financed with soft loan in purchasing rice seedling planting machine.

CF Farmers are responsible for all farming activities (weeding, fertilizing, crop protection, etc.) according to the company's guidance under the supervision of Hia Chai's agronomist. Hia Chai purchases rice seed back from the farmers with an extra price linked to rice market prices and according to percentage of rice moisture.

C. The CF buyer

Company name	Hia Chai Rice Seeds Producer									
Affiliations (if applicable)	-									
Legal form	Company limited									
Founding year	1998									
Location	Suphanburi, Thailand									
	Head office:									
	If applicable, country office:									
	If applicable, closest office to CF location: in close vicinity									
No. of permanent staff	Overall company staff	ca. 90	Administration	10	Processing	60	Trade	10	CF field staff	10
No. of seasonal workers	Overall seasonal	-	CF field workers	-						
	Size of own estate (ha)	ca. 50								
If nucleus estate model (tick several if relevant)	Main purpose of own estate:		Raw material supplies	<input type="checkbox"/>	Research	<input checked="" type="checkbox"/>	Demonstration	<input checked="" type="checkbox"/>		
	Other, namely ...	Nursery for seedlings								

D. The CF farmers

Locations	T. Ban Poh, Muang, Suphanburi, Thailand					
Typical farming systems	Small-scale farmers		Medium-scale farmers		Large-scale farmers	
	Average farm size (ha)	5 ha; ranging from 2 ha to 30 ha	Average farm size (ha)		Average farm size (ha)	
	Typical product-combinations	rice, fruits	Typical product-combinations		Typical product-combinations	
	Main staple/ livestock		Main staple/ livestock		Main staple/ livestock	
Farmers under CF	Small-scale farmers		Medium-scale farmers		Large-scale farmers	
	No. contract farmers	250	No. contract farmers		No. contract farmers	
	Contracted area (ha)	1,300 ha	Contracted area (ha)		Contracted area (ha)	
History of contracted area	Start of CF operations in year		1997			
	1 st year	2 nd year		3 rd year	4 th year	
	5 th year	6 th year		10 th year	Today	1,300
History of no. of contracted small-scale farmers	Start of CF operations in year		1997			
	1 st year	2 nd year		3 rd year	4 th year	
	5 th year	6 th year		10 th year	Today	250
Organisational status of small-scale farmers	Individual farmers		✗	Informal/ social groups ¹⁹		Formal groups ²⁰
In case of informal or formal groups	Average no. of members			Strengths		Weaknesses
	• Hard working and trustworthy • Own or has proper rice farm land • Able and willing to adopt Hia Chai's guidance/techniques in rice farming • Loyalty to the CF scheme					
Farmer selection criteria	Track record		✗	Farmer-to-farmer		
	Recommended by:		Extension service	Community leaders		Other
Farmer selection system (tick several if relevant)						

¹⁹ Registered with social services and similar authorities for non-commercial objectives (e.g. community based organisations, common interest groups)

²⁰ Registered as legal entity with commercial non-profit or profit objectives (e.g. associations, cooperatives, company Ltd.)

E. Contract specifications (for explanations see CF Handbook, Volume I, Box 17, p.75ff)

Contract duration	Continue
Quality	<ul style="list-style-type: none"> • Farm land is prepared for transplanting team • Weeding, fertilizing and culling (uneven trees/seeds) program/guidance • Best practices in harvest and transport control to avoid contamination of other seeds • per cent moisture of rice seeds
Quantity and procurement schedule	<ul style="list-style-type: none"> • 2-3 crops a year with centralized plan from the CF company
Production (e.g. Good Agricultural Practices)	<ul style="list-style-type: none"> • Strictly follow transplanting schedule with Hia Chai • Land preparation • Watering, fertilizing, weeding and crop protection program • Culling of rice trees and unqualified grains • Farm quality control by CF staffs • Follow harvest and transport schedule for optimal ripeness and control of contamination
Harvesting/ slaughtering and delivery	<ul style="list-style-type: none"> • The harvesting machine and transporting vehicle are necessary to be cleaned before working for the CF farms
Pricing/ pricing mechanism	<ul style="list-style-type: none"> • CF farmers receive extra price of 2,000 Thai Bahts per ton compared to market prices of normal rice grain.
Payment conditions	<ul style="list-style-type: none"> • Cash or bank transfer
Embedded services (support) provided	<ul style="list-style-type: none"> • Supply Hia Chai's rice seedling • Trainings and supervision on rice seed production • Knowledge transfer for improving yield and farm management • Access to the company's technology and facilities • Soft loan for transplanting machine
Dispute settlement	<ul style="list-style-type: none"> • Farmer orientation before starting with new CF farmers will provide working guidelines • CF staffs have daily contact with farmers and handle potential problems in a proactive manner • Farmers violating the CF rules will be warned and discussed. If it is not possible to resolve, the farmer is out of the scheme.
Registration, if applicable	<ul style="list-style-type: none"> • Farmers are informally (no-contract) linked with the company

F. CF business model for explanations/ contents see section 2.4.1 Tool: CF Business Model Canvas)

(adapted by the author from: Lundy et al., 2012, p. 40ff, adapted from: Osterwalder and Pigneur, 2010)

In interviews: if possible, use moderation cards to facilitate the discussion/ visualisation of the business model. It is likely that the canvas becomes a takeaway for the interviewees.

8. Key partners <ul style="list-style-type: none">• Department of rice• Rice seeds producer association• Rice stakeholders on province level• CF farmers• Hia Chai company	7. Key activities <ul style="list-style-type: none">• Farmer selection as a key process of growing• Verbal agreement and commitment• Capacity building in agricultural extension, informal meetings (learning by doing)• Monitoring and inspection• Managing transplanting team• Formation of seeds producer's association• Promote Hia Chai brand	2. Value Proposition <p>For farmers</p> <ul style="list-style-type: none">• Increased yield, ca. 20%• Premium prices of 2,000 Bahts/ton higher than normal rice• Assured market• Production cost reduction• Knowledge transfer <p>Hia Chai</p> <ul style="list-style-type: none">• Synergize scarce production factors with farmers i.e. land and labour are costly• Quality and satisfaction guarantee of the rice seeds with Hia Chai brand name• Create niche market for high quality rice seeds• Rice seeds producer networks	4. CF supplier-buyer relationship* <ul style="list-style-type: none">• Trust worthiness• Ladies/gentlemen agreement (no written contract)• Farmers are to adopt Hia Chai's practices and production plans• Hia Chai provides technical and advisory services for rice farming• Soft loan for purchasing seedling planting machine• Provide seedlings• Guarantee prices above the local market	1. CF market requirements <ul style="list-style-type: none">• Thailand allocates 63% of agricultural land for rice production and it is a world major rice exporter• High demand of rice seeds in Thailand, ca. 1 million ton/year• High quality rice seed (in terms of purity and % germination) provision is limited• High fluctuation of demand for different varieties due to weather, pests, etc.• It is the Thai government policy to promote the provision of high quality rice seeds
6. Key resources <ul style="list-style-type: none">• Rice seeds bank of the key 11 varieties• Technicians (extension, inspectors)• Quality control laboratory and staffs• CF farmers with their land/ skills• Innovative technology in rice seedling production and transplanting		3. CF infrastructure/ logistics <ul style="list-style-type: none">• Nursery for seedlings• Transportation and transplanting machine• Processing: dryer, sorting, packaging, etc.• Quality control laboratory• Marketing and distribution• Training centre/courses		
9. Cost structure <p>Production costs (estimation) for farmers</p> <ul style="list-style-type: none">• Land rent: 625 kg rice grains/ha• Land preparation: 3,125 Bahts/ha• Rice seedlings: 6,260 Bahts/ha• Transplanting: 3,750 bahts/ha• Spaying, fertilizing, weeding, watering• Harvesting: 3,438 Bahts/ha• Transportation: 70 - 120 Bahts/ton• Operation costs for Hia Chai: ca. 3 bahts/kg		5. Revenue streams <p>Return for farmers</p> <ul style="list-style-type: none">• Rice seed yield ca. 5-6.25 ton/ha• Premium prices of 2,000 Baht/ton <p>Return for Hia Chai</p> <ul style="list-style-type: none">• Rice seeds: 17 Baht /kg*• Selling price: 22-23 Baht/kg• Gross margin: 2-3 Baht/kg <p>* Based on the government guarantee price at 15 Baht/kg (February, 2014), and 2 Baht premium price paid by Hia Chai.</p>		

.....

* Use separate page for charting out collaborative links / communication flows.

5.1.2/Thailand/ Palm oil

Case example Thailand seed rice contract farming scheme (case example of a CF scheme supported by 3rd parties)

Author	Yotsawin Kukeawkasem	Date	January 2015
--------	----------------------	------	--------------

A. Basic information on the CF scheme

Country and location	Thailand/ Krabi		
CF product	Oil palm		
CF starting year	2010		
CF target market/s (tick several if applicable)	Local	Regional	South-South
CF business model (tick several if transitional)	Informal model	Intermediary model	Centralised model
			Nucleus estate model

B. Short history of the CF scheme (reason for starting the CF, development path to date)

The expansion of oil palm plantations in tropical countries has been widely criticized for having significant adverse effects on environment and contributing to local socio-economic exploitation, e.g. land disputes, unhealthy working conditions, forced labour, exploitive wages, use of hazardous substances, etc.

From year 2009 to mid of 2012, independent oil palm farmers in key producing provinces were supported by GIZ-OAE (Office of Agricultural Economic, Ministry of Agriculture and Cooperatives) project to promote sustainable palm oil production and to support the establishment of certification systems for sustainably produced palm oil in Thailand. In late 2012, 412 smallholders were certified with RSPO standard (Round Table on Sustainable Palm Oil), an international sustainability standard, as the world's first independent smallholder groups.

Farmer groups were formed and its members have been voluntarily complying with the RSPO standard. The buyer (oil palm mill) provides farmer groups with trainings, fertilizer bulky purchase, pricing according to produce quality, mentoring of the internal control system, etc. In return, the farmers are committed to maintain the compliance with RSPO and supply high quality oil palm fruit bunches to the mill regularly.

Recently, 2 years after the GIZ-OAE project ended, the approach has been adopted by government institutions and other private actors and promoting in a larger scale among 2,573 smallholders covering oil palm farming area of 13,715 ha. The detail below is one of the four farmer groups supported by the GIZ-OAE project.

For more info: http://www.rspo.org/sites/default/files/UNIVANIC-PLAIPRAYA_Group_Summary_Report_v4_1-51.pdf

C. The CF buyer

Company name	Univanich Palm Oil Public Company Limited		
Affiliations (if applicable)	-		
Legal form	Palm oil crushing company (listed public company) www.univanich.com		
Founding year	1969		
Location	Head office: Krabi, Thailand		
	If applicable, country office:		
	If applicable, closest office to CF location:		
No. of permanent staff	Overall company staff	Administration	Processing
No. of seasonal workers	Overall seasonal	CF field workers	Trade
			CF field staff
If nucleus estate model (tick several if relevant)	Size of own estate (ha)	6,274 ha, which supplies ca. 15% of raw materials for its processing capacity	
	Main purpose of own estate:	Raw material supplies	Demonstration
	Other, namely ...		

D. The CF farmers

Locations	Plaipraya, Krabi, Thailand					
Typical farming systems <small>Remark: According to RSPO, small farmers are those cultivating oil palm with planted area less than 50 hectares.</small>	Small-scale farmers		Medium-scale farmers		Large-scale farmers	
	Average farm size (ha)		Average farm size (ha)		Average farm size (ha)	
	Typical product-combinations		Typical product-combinations		Typical product-combinations	
	Main staple/ livestock		Main staple/ livestock		Main staple/ livestock	
Farmers under CF	Small-scale farmers		Medium-scale farmers		Large-scale farmers	
	No. contract farmers		No. contract farmers		No. contract farmers	
	Contracted area (ha)		Contracted area (ha)		Contracted area (ha)	
History of contracted area	Start of CF operations in year					
	1 st year	645	2 nd year	3 rd year	4 th year	
	5 th year		6 th year	10 th year	Today	
History of no. of contracted small-scale farmers	Start of CF operations in year					
	1 st year	158	2 nd year	3 rd year	4 th year	
	5 th year		6 th year	10 th year	Today	
Organisational status of small-scale farmers	Individual farmers		<input type="checkbox"/>	Informal/ social groups ²¹		Formal groups ²²
	Average no. of members		158 farmers	Strengths <ul style="list-style-type: none">• Recognized by provincial office of Dept. of Agricultural Extension• Access to official supports and services as an active farmer group		Weaknesses <ul style="list-style-type: none">• Requires paper work, reports and bureaucratic• voluntary membership in farmer groups
Farmer selection criteria	Oil palm farm size less than 50 ha <ul style="list-style-type: none">• Willing to comply with RSPO standard• Committed to the farmer group's regulation• Regularly deliver to the partner mill					
Farmer selection system (tick several if relevant)	Track record		<input type="checkbox"/>	Farmer-to-farmer		
	Recommended by:	Extension service	<input type="checkbox"/>	Community leaders		Other

²¹ Registered with social services and similar authorities for non-commercial objectives (e.g. community based organisations, common interest groups)

²² Registered as legal entity with commercial non-profit or profit objectives (e.g. associations, cooperatives, company Ltd.)

E. Contract specifications (for explanations see CF Handbook, Volume I, Box 17, p.75ff)

Contract duration	Continue
Quality	<ul style="list-style-type: none"> • Ripe fresh fruit bunches, reddish orange with about 10 detached fruitlets • The length of oil palm fruit bunch stalk is less than 2 inches • Delivery to the mill within 48 hrs after harvest • No contamination of water, sand, soil, etc.
Quantity and procurement schedule	<ul style="list-style-type: none"> • Every 3-4 weeks • All oil palm fresh fruit bunches from member is welcome
Production (e.g. Good Agricultural Practices)	<ul style="list-style-type: none"> • Comply with RSPO standard which is comprised of 8 principles, 39 criteria, and some 130 key sustainability performance indicators for sustainable palm oil production: http://www.rspo.org/en/principles_and_criteria_certification • Part of the farmer group's internal control system (ICS)
Harvesting/ slaughtering and delivery	<ul style="list-style-type: none"> • Every 3-4 weeks • Deliver directly to the mill or designated collection points
Pricing/ pricing mechanism	<ul style="list-style-type: none"> • Based on local market prices plus premium price based on quality of the oil palm fresh fruit bunches according to the agreed grading system
Payment conditions	<ul style="list-style-type: none"> • Cash or bank transfer
Embedded services (support) provided	<ul style="list-style-type: none"> • Trainings on oil palm agronomy, environmental and social management • Bulky purchase of fertilizer with the mill • Seedlings provision (with reduced price and priority to its member) • Free empty fruit bunches (EFB) for using as an organic matter in the plantation • Express delivery channel for the member • Technical supports
Dispute settlement	<ul style="list-style-type: none"> • Farmer group and buyer are keen to foster the win-win agreement in a proactive manner to avoid disputation and breakage of the business linkages in the free and high competitive business environment. • In case, there is any potential issue arising the two parties tend to solve problem on their own.
Registration, if applicable	<ul style="list-style-type: none"> • Farmers are registered with the farmer's group and • The farmer group is officially registered with department of Agricultural extension as a community enterprise

F. CF business model case example: Thailand palm oil contract farming scheme

(adapted by the author from: Lundy et al., 2012, p. 40ff, adapted from: Osterwalder and Pigneur, 2010)

In interviews: if possible, use moderation cards to facilitate the discussion/ visualisation of the business model. It is likely that the canvas becomes a takeaway for the interviewees.

8. Key partners Field level <ul style="list-style-type: none"> • Univanich Palm Oil PCL • The farmer group • 158 Individual farmers Technical supports <ul style="list-style-type: none"> • Prince of Songkla University • Mahidol University • Dept. of agricultural extension • Dept. of Agriculture • Organic Agricultural Certification Thailand (AOT) • Industrial Forest Organization (IFO) • Syngenta, Agrisoft, etc. Project facilitation and funding <ul style="list-style-type: none"> • OAE: Office of Agricultural Economics, Ministry of Agriculture and cooperatives • GIZ: German International cooperation • BMU: German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety 	7. Key activities <ul style="list-style-type: none"> • Project agreement with Univanich PCL • Forming farmer group • Introduce Internal Control System • Farmer training (ca. 10 curriculums) • Capacity building of Farm Advisors • Database development and maintenance • Monitor the farmer-firm agreement • Certification auditing and trading 	2. Value Proposition For smallholders <ul style="list-style-type: none"> • Increase yield • Production cost reduction • Agricultural best practices • Knowledge transfer CPO millers <ul style="list-style-type: none"> • Enhance loyalty and consistent supply base • Increase oil extraction rate (from better quality of FFB) • Access to sustainable market Processors and retailers <ul style="list-style-type: none"> • Brand reputational risk management 	4. CF supplier-buyer relationship * For farmer <ul style="list-style-type: none"> • Participate farmer group activity regularly • Comply with RSPO • Consistent delivery to Univanich • Harvest ripe FFB, etc. For miller <ul style="list-style-type: none"> • FFB Quality-based pricing • Bulky purchase of fertilizer • Fast-track for FFB delivery • Seedlings (reduced price and priority to its member) • Free empty fruit bunches (EFB) 	1. CF market requirements <ul style="list-style-type: none"> • Increasing demand for world vegetable oil for food and fuels • Palm oil is the most competitive commodity among vegetable oils • Growing concerns of economic, social and ecological adverse effects from oil palm expansion areas • Demand of international market for sustainable palm oil
	6. Key resources <ul style="list-style-type: none"> • Pool experts: agronomist, health and occupational safety, Integrated Pest Management, High Conservation Values, Internal Control System, farm records, RSPO, etc. • Millers' purchase manager and technicians 		3. CF infrastructure/ logistics <ul style="list-style-type: none"> • Designated collection points • Direct delivery to the mill • Harvesting and transportation team arrangement • Buying-selling records for traceability 	
9. Cost structure <ul style="list-style-type: none"> • Technical supports: trainings, farm advisors, experts, personnel, etc. • Group administrative costs: management and monitoring • Certification: compliance and auditing costs 		5. Revenue streams For farmers/group <ul style="list-style-type: none"> • Additional revenue from yield increase (15%) • Price premium based on quality (1-2%) • Certificate premium For miller <ul style="list-style-type: none"> • Improve oil extraction rate • Consistent supply base 		

.....

* Use separate page for charting out collaborative links/ communication flows.

5.1.3/ Kenya/ Meat production

Case example Rabbit meat farming contract scheme

Author	Stephen Mailu		Date	January 2015	
--------	---------------	--	------	--------------	--

A. Basic information on the CF scheme

Country and location	Kenya/ Thika									
CF product	Rabbit meat									
CF starting year	2005									
CF target market/s (tick several if applicable)	Local	<input checked="" type="checkbox"/>	National	<input checked="" type="checkbox"/>	Regional	<input type="checkbox"/>	South-South	<input type="checkbox"/>	South-North	<input type="checkbox"/>
CF business model (tick several if transitional)	Informal model	<input checked="" type="checkbox"/>	Intermediary model	<input checked="" type="checkbox"/>	Multipartite model	<input type="checkbox"/>	Centralised model	<input type="checkbox"/>	Nucleus estate model	<input type="checkbox"/>

B. Short history of the CF scheme (Reason for starting the CF, development path to date)

For the majority of small-scale rabbit farmers in Kenya, joint marketing can be a means for making commercialisation more efficient (less transaction costs) and successful (more remunerative outlets). Encouraged by the National Agriculture and Livestock Extension Program (NALEP), 5 Common Interest Groups (CIGs) were formed in 2000 bringing together 25 members. In 2005, the THIGA self-help group was formed under the NGO Act uniting the scattered CIGs, which grew to 25 groups with 200 members by 2009.

In 2009, THIGA was transformed into the Rabbit Breeders Association of Kenya (RABAK; see <http://rabak.or.ke>). Registered under the Societies Act, the association is now able to act as a business. RABAK encourages rabbit rearing to promote food security, wealth and employment in rural areas. The Ministry for Livestock availed office space and the Municipality 3.5 acres to set up a slaughter facility (capacity: 2,000 rabbits/ day). RABAK sells to Benida Foods Ltd., which supplies to the Uchumi Supermarket chain. With 2 tons of rabbit meat per month, RABAK assures between 10 and 30% of Uchumi's demand. To satisfy quality requirements, farmers were trained in rabbit management and assisted in acquiring improved breeds.

A quality assurance system with certified meat handlers has been established along the supply chain. By extending the catchment area to assure more supplies for the slaughtering facility, RABAK expanded to 3,000 registered members (thereof 600 in Kiambu County).

To add more value, RABAK members were trained in the production of sausages, samosas and meat loafs (supported by Jomo Kenyatta University (JKUAT) and the Ministry's Agribusiness Section). The respective processing equipment is financed by the County Government. RABAK also intends to add value to the rabbit skin once a suitable investor is identified to set up a tanning unit near the slaughtering facility.

C. The CF buyer

Company name	Benida Farm Products Ltd							
Affiliations (if applicable)	-							
Legal form	Limited company							
Founding year	2012							
Location	Head office: Nairobi If applicable, country office: NA If applicable, closest office to CF location:							
No. of permanent staff	Overall company staff	7	Administration	3	Processing	4	Trade	CF field staff
No. of seasonal workers	Overall seasonal	0	CF field workers	0				
If nucleus estate model (tick several if relevant)	Size of own estate (ha)	NA						
	Main purpose of own estate:	Raw material supplies	<input type="checkbox"/>	Research	<input type="checkbox"/>	Demonstration	<input type="checkbox"/>	
	Other, namely ...							

D. The CF farmers

Locations	Mainly located in Kiambu, Nyeri Nairobi, Kajiado and Muranga and venturing into farther off regions; Nakuru, Laikipia, Kericho, Machakos Embu Meru and Mombasa counties											
Typical farming systems	Small-scale farmers			Medium-scale farmers			Large-scale farmers					
	Average farm size (ha)			Average farm size (ha)			Average farm size (ha)					
	Typical product-combinations			Typical product-combinations			Typical product-combinations					
	Main staple/ livestock			Main staple/ livestock			Main staple/ livestock					
Farmers under CF	Small-scale farmers			Medium-scale farmers			Large-scale farmers					
	No. contract farmers			No. contract farmers			No. contract farmers					
	Contracted area (ha)			Contracted area (ha)			Contracted area (ha)					
History of contracted area	Start of CF operations in year											
	1 st year	NA	2 nd year	NA	3 rd year	NA	4 th year	NA				
	5 th year	NA	6 th year	NA	10 th year	NA	Today	NA				
History of no. of contracted small-scale farmers	Start of CF operations in year											
	1 st year	(2005) 50	2 nd year	(2006) 60	3 rd year	(2007) 100	4 th year	(2008) 150				
	5 th year	(2009) 200	6 th year	(2010) 3,000	10 th year	(2014) 3,000 (600 active)	Today					
Organisational status of small-scale farmers	Individual farmers			X			Informal/ social groups ²³			X		
In case of informal or formal groups	Average no. of members		• Originally 200 members spread out into a dozen Community Interest Groups (CIG) • Currently 600 active members under one umbrella		X			Informal/ social groups ²³		X		
					Strengths			Weaknesses		• Low degree of active members • Fragmented membership across the country making supervision/ monitoring a challenge		
Farmer selection criteria	RABAK mainly deals with registered farmer members who • Must attend at least 3 meetings per year • Build rabbit hatches according to a Ministry approved plan • Must have at least 5 rabbits (this requirement was shelved in order to attract more rabbits to satisfy the supply deficits) • Willing to adhere to by-laws											
Farmer selection system (tick several if relevant)	Track record			Farmer-to-farmer								
	Recommended by:			Extension service			Community leaders			Other		
											Farmers self-select to join RABAK	

Farmers self-select to join RABAK

E. Contract specifications (for explanations see CF Handbook, Volume I, Box 17, p.75ff)

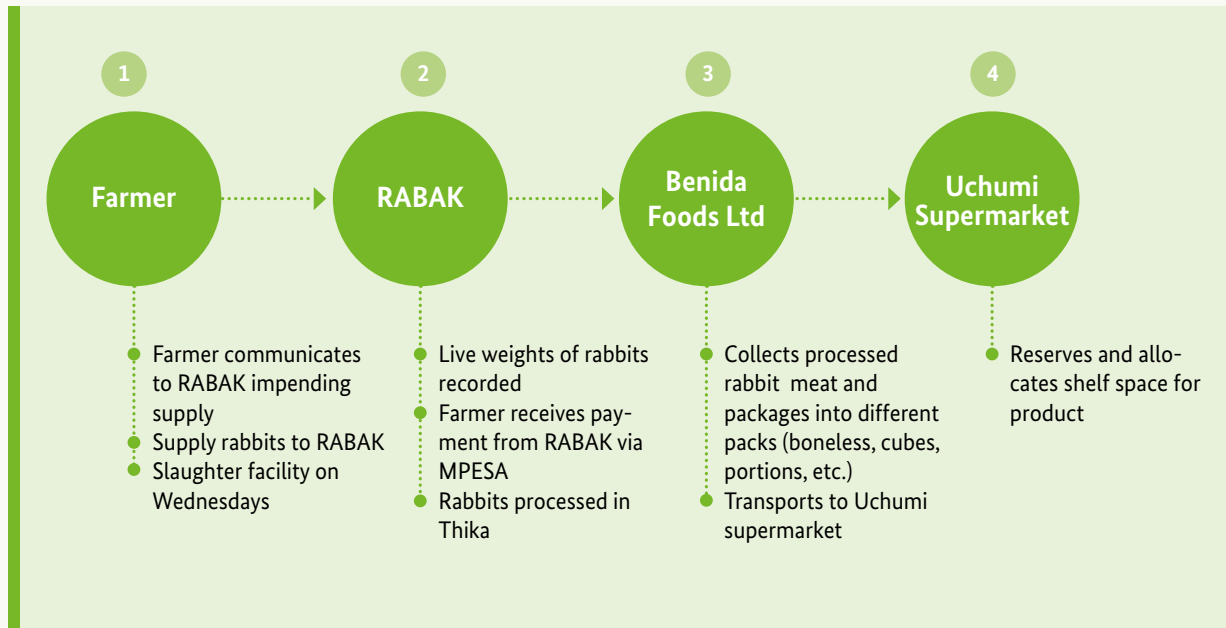
Contract duration	Unspecified, long-term arrangement
Quality	RABAK is certified according to the Kenya Bureau of Standards (KEBS) KS 2455 "General standard on food safety" (http://rabak.or.ke/wp-content/uploads/KEBS-Certificate.pdf) and has been issued with a barcode to identify its product in the supermarket shelves. The slaughter house is inspected by government meat inspectors.
Quantity and procurement schedule	RABAK asks its members to supply rabbits every Wednesday and the buyer arranges to pick meat for transportation to Nairobi where this is supplied to outlets of the Uchumi supermarket chain.
Production (e.g. Good Agricultural Practices)	Rearing rabbits in approved hatches as well as training in rabbit end-to-end (E2E) management has ensured that there is some control over production practices.
Harvesting/ slaughtering and delivery	Farmers call RABAK to confirm the time of delivery of rabbits. Mature rabbits (4-5 months), which must have a live weight of 3 KGs and above are delivered to the Thika slaughterhouse by farmers every Wednesday.
Pricing/ pricing mechanism	Live rabbits are weighed upon delivery and farmers are paid based on a 50% dressing percentage. At present, the buyer pays KES 400 per kg of rabbit meat which is paid to RABAK. Of this amount, KES 50 is retained by RABAK to cater for services rendered including maintaining the abattoir, meat inspection, labour and other overheads while farmers receive the balance of KES 350 per kg of rabbit meat.
Payment conditions	Upon delivery of rabbits to the slaughter facility, RABAK pays farmers via M-PESA (mobile-phone based money transfer and micro financing service). The onus is then upon RABAK to effect the transfer of processed rabbit to Benida Foods Ltd as the buyer.
Embedded services (support) provided	RABAK supports the provision of training and capacity building to farmers on: Good Rabbit Husbandry, feeding and general rabbit handling/ management, proper rabbit housing, breeds, marketing. RABAK also supports farmers by representing them in forums such as field days, Agricultural Society of Kenya (ASK) shows and trade fairs and other professional forums such as scientific conferences. These provide learning opportunities for members. RABAK also provides a link between the farmers and the authorities for finance support etc. and also maintains an online presence on Facebook as well as on its website. Benida Foods Ltd. has also launched into the East African Market through exhibitions with the support of the Export Promotion Council.
Dispute settlement	Meetings held every month are used by members to settle any disputes that may arise as well as plan for future deliveries.
Registration, if applicable	RABAK is registered through the Societies Act (CAP 108) though members are linked informally to the buyer.

F. CF business model (for explanations/ contents see section 2.4.1 Toolkit: CF Business Model Canvas)

(adapted by the author from: Lundy et al., 2012, p. 40ff, adapted from: Osterwalder and Pigneur, 2010)

In interviews: if possible, use moderation cards to facilitate the discussion/ visualisation of the business model. It is likely that the canvas becomes a takeaway for the interviewees.

8. Key partners	7. Key activities	2. Value Proposition	4. CF supplier-buyer relationship *	1. CF market requirements
Farmers Ministry of Agriculture, Livestock and Fisheries: <ul style="list-style-type: none"> Provision of office space Provision of land to set up slaughter facilities Contribution to building the slaughter facility Training (e.g. value addition) through the agribusiness department County government of Kiambu <ul style="list-style-type: none"> Completion of slaughter facility Financing for equipment NALEP <ul style="list-style-type: none"> Initial flagging of rabbit rearing Community Interest Groups (CIG) Kenya Leather Development Council <ul style="list-style-type: none"> Training farmers on proper tanning of rabbit pelts Benida Foods Ltd <ul style="list-style-type: none"> Packaging rabbit meat Offering meat for sale through the Uchumi supermarket chain Uchumi Supermarket chain <ul style="list-style-type: none"> Retail outlet to the consumer 	Farmers <ul style="list-style-type: none"> Rearing of rabbits and maintaining high standards in rabbit husbandry Delivery of rabbits to the slaughter house for processing RABAK <ul style="list-style-type: none"> Advertisements to encourage more farmers to keep rabbits Maintaining an online presence Dedicated phone line to provide advice to farmers Monthly meetings to deliberate on issues and for joint planning Training of members Benida Foods Ltd <ul style="list-style-type: none"> Collection of meat and packaging for delivery to supermarkets Monitoring stock movement in the supermarkets to ensure re-stocking and remove expired items from shelves 	Farmers: Financially empowered farmers provided with an assured market RABAK A consistent supply of rabbits to ensure stream of incomes for farmers Benida Foods Ltd A reliable supply of rabbit meat at assured and competitive prices Uchumi A consistently well stocked shelf at designated branch outlets	4. CF supplier-buyer relationship * (see diagram below): <ul style="list-style-type: none"> Repeat sales contributed to creating trust and confidence between partners Monthly meetings between farmers and RABAK give a rough idea of their progress and helps plan ahead Payment for deliveries to farmers is effected via M-PESA the same day deliveries to Thika are made Training of farmers on E2E rabbit management Provision of good breeds to farmers to ensure maximum yields 	1. CF market requirements <ul style="list-style-type: none"> Two tons of rabbit meat per month to be delivered to supermarket outlets Rabbits need to be about 3 KGs live-weight for best results Meat inspection by a government Meat Inspector Medical certificates for the slaughter house workers and meat handlers and high standard packaging and bar coding for supply in the supermarket to ensure traceability
	6. Key resources <ul style="list-style-type: none"> Capital: Farmers land and other key re-sources (e.g. rabbit hutches, labour, feed) Dedicated slaughter facility in Thika Trained staff manning the facility Land (3.5 acres) with slaughter facility and space for atannery Dedicated and knowledgeable officials of RABAK 		3. CF infrastructure/ logistics <ul style="list-style-type: none"> A designated collection point (Thika) An abattoir with all necessary licenses and certifications (public health, veterinary department, etc.) Buying-selling records for traceability Direct collection of rabbit meat by the buyer (Benida Foods Ltd.) 	
9. Cost structure	5. Revenue streams			
<ul style="list-style-type: none"> ~ KES 200 cost of production for 4 – 5 month old rabbit on “local” feeds, Local feeds = (difficult to attach a monetary value to), Vet care = KES 80, Labour = KES 80, Depreciation of housing and equipment = ~ KES 35 ~ KES 315 cost of production for 4 – 5 month old rabbit on commercial feeds, Commercial feeds = KES 120, Vet care = KES 80, Labour = KES 80, Depreciation of housing and equipment = KES35 Transporting live rabbits to Thika slaughter house N/B. Cost of delivering rabbits are met by the farmer while the collection costs are met by RABAK (weighing, etc.). Slaughtering costs include: meat inspection, labour, government taxes, supervision and maintenance of the slaughter house; which includes water and power bills, land rent and security. 	<ul style="list-style-type: none"> KES 400/ KG paid to RABAK KES 50/ KG retained by RABAK to cater for overheads and other operational and statutory costs KES 350/ KG paid to farmers for delivery of rabbit meat 			

CF supplier-buyer relationship

5.2/ References for case studies

Continent/ countries	Products	Topics	Source ²⁵
Worldwide			
Various	Various	Comprehensive list of references for case studies and contract farming in general	UNIDROIT (2014): Workshop on the Legal Dimension of Contract Farming: Selection of Informational Material on Contract Farming, Selected Web and Bibliographical References > Link
Various	Various	Comprehensive databank of case studies, toolkits, links	FAO website: Contract Farming Resource Centre English > Link French > Link Spanish > Link
Various	Various	Comprehensive list of references for case studies and contract farming in general	Prowse, M. (2013) : Contract farming in developing countries: a review; Annexes; p.XXIX-XXXVI > Link
Various (Colombia, Croatia, Greece, India, Kenya, Thailand)	Various (cassava, maize, papaya, sugar cane, pigs, tobacco)	<ul style="list-style-type: none"> • Advantages and problems of CF • Key preconditions for success • Types of contract farming • Contracts and their specifications • Pricing and grading specifications • Managing contract farming • Monitoring performance 	Eaton, C., A.W. Shepherd (2001): Contract Farming – Partnerships for Growth – A Guide > Link
Various (Bangladesh, China, India, South Africa, Tanzania, Honduras, Argentina, Brazil)	Various (poultry, pork, citrus, vegetables, cocoa, grain, rice, biodiesel, eucalypt)	Detailed case studies on contract farming for inclusive market access: <ul style="list-style-type: none"> • Functional perspective on CF (prices, embedded services, etc.) • Effectiveness of CF arrangements (risks, side-selling, etc.) • Institutional solutions for CF (effects on transaction costs) • Development agenda 	Silva, C.A. da & M. Rankin (ed.; 2013): Contract farming for inclusive market access; FAO > Link
Various	Various	<ul style="list-style-type: none"> • Guidelines of the European/ Italian regulations on CF (p.8f) • CF: Legal issues in drafting/ implementation of agreements (p.12ff) • Marketing boards and production contracts in Canada (p.15ff) • COMPACI empowering small-scale cotton farmers (p.18ff) • Bali fresh female farmers partnership (p.21ff) • Getting things right: gherkins contracting in India (p.24ff) • A boost for inclusive farmer-trader relationships in Ghana (p.28ff) • Cocoa production Honduras: new possibilities for smallholders (p.32f) • Contract farming: high potential profits for women in India (p.34ff) 	World Farmers' Organisation (WFO; ed.; 2013): Farmers' integration in the value chain: Fair terms need Fair contracts > Link
Generic	Generic	Success factors for contract farming/ inclusive business: <ul style="list-style-type: none"> • Business strategy for inclusive procurement • Relationship-based model • Piloting for scaling/ mainstreaming • Guidelines for NGOs 	Vorley, B., J. Thorpe (2014): Success factors for lead firms to shape inclusive procurement > Link

25 The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Topics	Source ²⁵
Worldwide			
Various (Africa, SE Asia)	Tree crops (cocoa, rubber, palm oil, coffee, tea)	<ul style="list-style-type: none"> • Objectives of contract farming • Crop suitability/ crop specific factors • Financial viability • Case studies 	Baumann, P. (2000): Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural tree Crops > Link
Generic (reference to Mexico, Colombia, Guatemala, Ecuador, US, India, Kenya)	Generic (reference to flowers, fruit and vegetables, cocoa, coffee, dairy)	<ul style="list-style-type: none"> • Inclusive trade relationships linking farmers to modern markets • Business model canvas (explanations and case examples) • Case examples contract farming (p.72, 77, 106, 109, 165, 166) • New business model typologies 	Lundy, M.et.al. (2012): LINK Methodology – A Participatory Guide to Business Models that Link Smallholders to Markets; International Center for Tropical Agriculture (CIAT); CIAT Publication No. 380 > Link Version 2.0 > Link
Generic	Generic	<ul style="list-style-type: none"> • Contract farming and inclusive business • Areas in which governments/ firms could ensure pro-poor outcomes • Contract farming and other business models for smallholder inclusion 	De Schutter, O. (2011): The Right to Food – Note by the Secretary-General; United Nations General Assembly > Link
Various (China, India, Mexico, Mozambique, UK, Africa, Vietnam)	Various	<ul style="list-style-type: none"> • Solutions for inclusive agribusiness • Identification business opportunities • Sourcing from smallholders • Relationship challenges • Structural challenges • How to assess local challenges • Sharing benefits 	Endeva, joyn-coop (2012): Growing Business with Smallholders – A Guide to Inclusive Agribusiness > Link
Various (Sub Sahara Africa, South and Central America, Europe)	Sugar beet, sugar cane, coffee, cotton, fresh vegetables, fresh fruit, quinine	<ul style="list-style-type: none"> • Farmers' organisations/ cooperatives and collective action (advocacy, innovation, training, contracting, marketing, production support, access to inputs and finance) • Capacities needed by farmers' organisations 	Stessens, J., C. Gouët & P. Eeckloo (2004): Efficient Contract Farming through strong Farmers' Organisations in a Partnership with Agri-business – Report by Order of IVA and AgriCord > Link
Various (reference to India, Ethiopia, Tanzania, Peru)	Poultry, beekeeping/ honey, seeds, vegetables	<ul style="list-style-type: none"> • Gender-responsible business • Approaches and tools • Case studies (p.73ff, 121ff, 251, 267ff, 270ff) 	KIT, Agri-ProFocus and IIRR (2012): Challenging chains to change: Gender equity in agricultural value chain development > Link
Generic	Generic	<ul style="list-style-type: none"> • “Gender equality gives businesses the opportunity to ... improve the security and quality of supply” (p.2) • “What a responsible business needs to do” (p.16) 	Oxfam (2012): Gender Equality: it's your Business - Practical Advice on Achieving Gender Equality > Link
Americas			
Brazil	Beef	<ul style="list-style-type: none"> • Less formal contractual relations resulting in frequent conflicts • Analysis whether incentive structures promote cooperation • Model of incentive structures for production of quality beef • Role of institutions in reducing organizational failures 	Morales de Queiroz Caleman, S. & D. Zylbersztajn (2011): Failures in Incentive Transmission along Brazil's Quality Beef Chain > Link
USA	Beef, Pork, Poultry	<ul style="list-style-type: none"> • Transition from cash markets to contract farming • Driving forces, problems, policy issues • Impacts on quality, financial risks and costs • Advantages and disadvantages 	Hayenga, M.et.al. (2000): Meat Packer Vertical Integration and Contract Linkages in the Beef and Pork Industries: An Economic Perspective > Link

25 The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Topics	Source ²⁵
Asia			
ASEAN countries	Generic	Contract farming in ASEAN countries: • Scale of contract farming • Forms of contract farming • Impact public or direct investment • Good practices • Negative impacts	CREM (2008): Contract farming in ASEAN countries - A fact finding study > Link
Bangladesh	Poultry	• Formal and informal types of CF/ other arrangements in poultry • Structure and conduct of poultry input and output markets • Determinants of participation in commercial and CF poultry farming • Technical and economic performance of commercial/ CF farms	Jabbar, M.A. et.al. (2007): Alternative institutional arrangements for contract farming in poultry production in Bangladesh and their impacts on equity; ILRI Research Report 7 > Link
Cambodia, Lao PDR, Thailand	Various	• Contract farming and regional cooperation • CF experiences in selected Asian countries • Global supply chains (food safety, traceability, supply chain mgt.) • Social contract farming	Setboonsarng, S. & P. Leung (2014): Making Globalization Work Better for the Poor through Contract Farming > Link
India	Generic	• Understanding contracts • Practice and impacts of contracts • Corporate-led/ state-led CF • Benefits of alternative marketing structures for small farmers (p.20)	Singh, S. (2005): Contract Farming for Agricultural Development - Review of Theory and Practice with Special Reference to India > Link
India	Various (potato, mint, organic basmati rice)	• Access to quality raw material for processors/ access to markets for farmers challenged by regulations • Lessons for managerial/ institutional arrangements for organising supply	Singh, S. (2008): Leveraging Contract Farming for Improving Supply Chain Efficiency in India: Some Innovative and Successful Models > Link
India	Apples	Case example developed for study purposes (undergraduate, graduate and executive levels): • Re-engineering supply chains after the government deregulated the marketing of fresh produce	Pandey, M., G.A. Baker & D.T. Pandey (2013): Supply Chain Re-engineering in the Fresh Produce Industry: A Case Study of Adani Agrifresh > Link
India	Potatoes	• Larger farms are more involved in contract farming than small farmers • Benefits for farmers result in growth of contracted area by farm • Transport and distance to plant gate as decision criteria • Contract farming provides reliable, regular, timely sources of income	Kaur, P. (2014): Contract Farming of Potatoes: A Case Study of PEPSICO Plant > Link
India	Vegetables, potatoes, mint, cotton, rice	• CF success stories in India and lessons learnt in CF • Factors influencing CF arrangements • Stages of evolution of CF and inclusive business • CF management and ICT	Ganguly, U. (2013): Contract Farming: Can it be a vehicle for Inclusive Growth? Review and synthesis of various studies on contract farming in India > Link
India	Biodiesel	• CF as one way of organising biodiesel supply (case overview p.78) • State policies in support of biodiesel production (incl.CF) • Detailed recommendations	Altenburg, T. et.al. (2009): Biodiesel in India: Value chain organisation and policy options for rural development > Link
India	Dairy	• Vertical coordination • Marketing and transaction costs • Costs and net revenues of contract versus independent dairy farms • Scaling up of contract farming	Birthal P.S. et.al. (2008): Improving Farm-to-Market Linkages through Contract Farming - A Case Study of Smallholder Dairying in India > Link

²⁵ The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Topics	Source ²⁵
Asia			
Lao PDR	Rice	<ul style="list-style-type: none"> • Impact of contract farming (effects on income/ rural poverty) • Assessment of farmers' performance with and without the contract • Findings: higher revenue and profitability of contract farms 	Setboonsarng, S., P. Leung, A. Stefan (2008): Rice Contract Farming in Lao PDR: Moving from Subsistence to Commercial Agriculture; ADB Institute Discussion Paper No. 90 > Link
Lao PDR	Various (maize, cassava, banana)	<ul style="list-style-type: none"> • Promotion of contract farming as a strategic policy to improve farm income and modernize agriculture • Analysis of: policy consistency; participation of farmers in contract preparation/ negotiations; environmental accountability 	Ministry of Planning and Investment et.al. (2014): Impacts of Contract Farming on Poverty and Environment in Lao PDR > Link
Thailand	Various	<p>Literature review:</p> <ul style="list-style-type: none"> • Contract forms, pricing, farmers' attitudes, income risks, etc. • Impacts (production/ management skills, improved bargaining position) • Recommendations for encouraging the participation of poor farmers • Voluntary exit of innovative farmers where markets are accessible 	Sriboonchitta, S. & A. Wiboonpoongse (2008): Overview of Contract Farming in Thailand: Lessons Learned; ADB Institute Discussion Paper No. 112 > Link
Thailand	Cassava for bio-ethanol	<ul style="list-style-type: none"> • CF could decrease costs, increase efficiency, improve risk mgt. • Intermediary CF with verbal agreements farmers-cooperatives/ written agreement cooperatives-processors • CF participation is influenced by gender, education, farmer group, input costs, incomes, credit access 	Tongchure, S. & N. Hoang (2013): Cassava Smallholders' Participation in Contract Farming in Nakhon Ratchasima Province, Thailand > Link
Thailand	Poultry	<ul style="list-style-type: none"> • Supply chain and resource flows • Production models (from backyard to industrial) • Formal and informal business relationships • Effects of changes in policies and regulations or shocks 	Heft-Neal, S. et.al. (2008): Supply Chain Auditing for Poultry Production in Thailand > Link
Thailand	Swine production	<ul style="list-style-type: none"> • Livestock waste is a worry especially in peri-urban areas • Assessment of abatement and environmental costs • Contract farming can be a means to promote waste management 	Vijitsrikamol, K. (2009): An Ecological Economic Analysis of Swine Wastes in a Peri-Urban Area of Thailand (Dissertation) > Link
Vietnam	Dairy	<p>Research questions:</p> <ul style="list-style-type: none"> • whether incentives incentivize input use to boost output and quality • whether risk preferences/ wealth levels drive farmers' input decisions (given frequent liquidity constraints) 	Saenger, C. et.al. (2012): Contract Farming and Smallholder Incentives to Produce High Quality: Experimental Evidence from the Vietnamese Dairy Sector; Global Food Discussion Papers No. 10 > Link
Vietnam	Rice, sugar cane, tea, coffee, artichokes, dragon fruit	<ul style="list-style-type: none"> • Evaluation of pilots of policies for promotion of CF • Lessons learnt ("results have been disappointing") • Recommendations (policies, farmer based organisations) 	Central Institute for Economic Management (CIEM; 2012): Study to Assess the Forms and Effectiveness of Contracting Mechanisms in the Agricultural Sector and Approaches to Improve their Adoption and Application > Link
Vietnam	Pig production	<ul style="list-style-type: none"> • Contract arrangements and barriers • Factors for likelihood of engaging in formal or informal contracts • Supportive policies and institutional environment 	Costales A, N.T. Son, M.L. Lapar, M. Tiongo (2008): Determinants of Participation in Contract Farming in Pig Production in Northern Viet Nam > Link
Vietnam	Bamboo	<ul style="list-style-type: none"> • Informal contract farming • Legal framework • Enforcement and dispute settlement • Value chain analysis 	GRET (2012): Policy Action Research on Bamboo Contracts in Mountainous Districts in the North-West of Thanh Hoa (Bampar Project) > Link

25 The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Topics	Source ²⁵
Europe			
Croatia	Fruit and vegetables	<ul style="list-style-type: none"> • Supermarket chains and wholesalers (1-year marketing contracts) • Embedded services (farm assistance) • Lack of scale economies to meet buyer volume requirements 	Götz, L. Et.al. (2009): Vertical Coordination and Grower Organization in the Supermarket Fruit and Vegetables Supply Chain in Croatia > Link
North Africa			
Egypt	High-value and organic horticultural export crops	<ul style="list-style-type: none"> • Contract farming could be effective for smallholder inclusion • Organising into farmer groups/ associations would support CF • Policy issues: enforcement, land tenure, investment incentives, logistics infrastructure 	International Fund for Agricultural Development (IFAD; n.d.): Egypt: Smallholder contract farming for high-value and organic agricultural exports > Link
Sub-Sahara Africa			
Various	Cotton	<ul style="list-style-type: none"> • Organisational models in cotton • Contract farming and the competition-coordination trade-off • Access to inputs and loans • Price volatility/ risks • Price formula • Cotton versus food crops 	Peltzer, R. & D. Röttger (2013): Cotton Sector Organisation Models and their Impact on Farmer's Productivity and Income; German Development Institute Discussion Paper 4/2013 > Link
Burundi, Ethiopia, Kenya, Mozambique, South Africa	Sorghum, cassava, fruit juice, seeds, sesame, sugar, cane, wine, dairy, poultry	<ul style="list-style-type: none"> • Inclusiveness of the chain and possibilities to increase inclusiveness • Critical factors for replication/ scaling up: commercial viability, ambition/ experiences, value proposition, environment, access to finance, organisational/ capacity constraints, ground-level presence of the company, partnerships 	Sopov, M. et.al. (2014): Is Inclusive Business for you? Seas of Change – scaling inclusive agri-food markets > Link
Malawi, South Africa, Swaziland, Tanzania	Coffee, mussel mariculture, sugar, tea	<ul style="list-style-type: none"> • The role of trust in enforcement/ Swaziland (p.185) • Institutional arrangements/ Malawi (p.213) • Arrangements/ transaction costs/ Tanzania (p. 227) • Transaction costs coordination with smallholders/ South Africa (p.245) 	International Food Policy Research Institute (IFPRI; editor; 2009): Institutional Economics Perspectives on African Agricultural Development > Link
Ethiopia	Various (organic, fruit juice, oil seeds, pulses, seed potatoes, horticulture)	Ten critical factors to enhance contract farming arrangements: quality standards; open communication; contract terms; extension support, training and knowledge; collection of produce; side selling; access to credit; access to inputs; pricing and method of payment; risk sharing	Nijhoff, H. & J. Trienekens (2010): Critical Factors for Contract Farming Arrangements: the Case of Ethiopia > Link
Ethiopia (references to Vietnam, Guatemala, Zimbabwe)	Sesame (references to haricot beans and honey)	<ul style="list-style-type: none"> • Transaction risks and costs • Models of contract farming • Types of contracts • Enforcement mechanisms • Pricing mechanisms 	Ayelech T. M. (2010): Contract Farming in Ethiopia. An Overview with Focus on Sesame > Link
Ethiopia	Dairy	<p>Woman farmer entrepreneur building supplier loyalty through new governance structures based on:</p> <ul style="list-style-type: none"> • Quality based premiums • Embedded services (advice, loans) • Product diversification to add value • New contract forms 	Steen, M. and W. Majers (2014): Inclusiveness of the Small-Holder Farmer – Key Success Factors for Ethiopian Agribusiness Development; in: International Food and Agribusiness Management Review (IFAMA); p. 83ff > Link

²⁵ The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Topics	Source ²⁵
Sub-Sahara Africa			
Ghana (references to Thailand, Uganda, India)	Fruits, maize, rice, oil palm, rubber, sorghum	Evaluation and comparison of: • Inclusive business models • Farmer owned businesses and • Joint ventures	Paglietti, L. & R. Sabrie (2013): Review of Smallholder Linkages for Inclusive Agribusiness Development – Good Practices in Investment Design > Link
Ghana	Peanuts	• Formal/ informal contracts for the production of certified seeds • Regulatory environment	Masters, W.A. et.al. (2013): Comprehensive Assessment of the Peanut Value Chain for Nutrition Improvement in Ghana > Link
Ghana	Shea	• Business model based on strong contract-based network alliances with local shea associations • Franchising intellectual property (product, process) to producer associations	Abban, R. et.al. (2014): Ele Agbe in Search of a New Light in Ghana's Shea Sector; in: International Food and Agribusiness Management Review (IFAMA); p. 63ff > Link
Ghana	Maize	• Informal CF between wholesalers and smallholders • Interdependencies assure a balance of power (traders depend on farmers during the dry season and farmers depend on traders during the major/ rainy season)	Will, M. & M. Plewa (2013): A boost for inclusive farmer-trader relationships; in Rural21 02/2013, p.9ff > Link
Kenya	Flowers	• Five key principles of sustainable supply chains: fair and transparent governance, chain-wide collaboration, inclusive innovation, equitable access to inputs, chain-wide measurement of outcomes • Assessing relationship strength	Kent Business School & the International Institute for Environment and Development (IIED; 2012): Measuring Fairness in Supply Chain Trading Relationships: Methodology Guide > Link
Kenya	Fresh fruit and vegetables	Contract farming business model: • Contract with smallholder groups (80%), buying from large scale growers, growing on its own farms • Embedded services/ group governance training to avoid side-selling • NGO supporting SMEs to provide contracted growers with inputs	Mabaya, E. & L. Cramer (2014): Growth in a Globalized Industry: The Case of Hillside Green Growers & Exporters Ltd.; in: International Food and Agribusiness Management Review (IFAMA); p. 201ff > Link
Kenya	Vegetables	• Incentives for the buyer/ for farmers • Structure of outgrowing operations • Method of selecting outgrowers • Contracting and pricing strategies • Coaching/ training farmers • Monitoring of farmers • Procurement operations	Derks, E. (2008): A case study on East Africa Growers: Vegetable exports from Kenya; Action for Enterprise: The Field Support program Learning on Outgrower Initiative > Link
Kenya	Dairy	• Predominance of spot market/ informal contracts • High rate of breach linked to market information/ market distance • Production volumes strongly linked with contracting • Organised farmers are more likely to supply through formal contracts	Mailu, St. et.al. (2014): Milk supply contracts and default incidence in Kenya > Link
Kenya	Poultry	• Contract farming as reaction to market failure • Impacts: CF can improve farmers' welfare/ reduce rural poverty • Policy recommendation: e.g. improve rural infrastructure/ roads • Recommendation: support producer organisations in contract farming	Wainaina, P.W., J.J. Okello, J. Nzuma (2012): Impact of Contract Farming on Smallholder Poultry Farmers' Income in Kenya > Link
Kenya, Uganda	Certified seeds, potatoes	Key success factors: • Recruitment of farmers through farmer groups/ opinion leaders • Farmers should be trustworthy and able to grasp/ apply instructions • Collective marketing (group contracts)	Mugoya, M. & M.T. Rwakakamba (2010): Instruments to Increase Market Power of Farmers – Case Studies from East Africa > Link

²⁵ The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Topics	Source ²⁵
Sub-Saharan Africa			
Madagascar	Artemisia	<ul style="list-style-type: none"> • Capacity development (p. 39ff) • Small farmer organisation (p. 45ff) • Field management (p. 50ff) 	BIONEXX (2010): A historical perspective; Artemisinin Conference Madagascar (presentation) > Link
Malawi	Cotton, Paprika, Sugar, Tea, Tobacco	<ul style="list-style-type: none"> • Arrangements & performance • Compliance open market crops • Impact of government interventions • Contract farming strategy (pricing, compliance, etc.) 	Agar, J. & P. Chiligo (2008): Contract Farming in Malawi > Link
Mozambique	Various	<ul style="list-style-type: none"> • Agric. growth corridors and CF • Financing solutions/ support • Smallholder support facility • Case examples • Failed case 	<ul style="list-style-type: none"> • Beira Agricultural Growth Corridor (BAGC; 2012): Partnership Progr. Report > Link • BAGC (2012): Beira Agricultural Corridor – Delivering the Potential, p.13 > Link
Rwanda (reference to Kenya)	Bee-keeping/ honey	<ul style="list-style-type: none"> • Trader credit in CF (beehives as in-kind credit) • Criteria to qualify for trade credit based on savings • Success factors: clear terms, streamlined governance, transparency and ability to enforce 	SNV Rwanda (2009): Beekeeping /Honey Value Chain Financing Study Report > Link
South Africa	Tea	<p>Key success factors:</p> <ul style="list-style-type: none"> • Business model strongly based on contractual supplier relationships • Dedicated staff to provide technical/ other advice to farmers • Fair employment, environmental stewardship 	Vink, N. et.al. (2014): Rooibus Ltd.: Turning Indigenous Products into Business Opportunities; in: International Food and Agribusiness Management Review (IFAMA); p. 45ff > Link
Tanzania	Sunflower	<ul style="list-style-type: none"> • Facilitation of contract farming: “contract farming through action learning” 	Bwana, G., M. Berset, M. Rueegg (2012): RLDC's role as a Facilitator of Market Development Learning from experience > Link
Tanzania	Fresh fruit and vegetables	<ul style="list-style-type: none"> • Exporter interested to develop local market outlets • Success factors: close control of supply chain, quality management system, regular training to farmers 	Dominic, Th. et.al. (2014): HomeVeg Tanzania: Managing a New Strategy Amidst GLIMPSE Challenges; in: IFAMA; p. 207ff > Link
Tanzania	Indigenous poultry	<ul style="list-style-type: none"> • Contract farming as a solution to production constraints • Benefits making contract farming an option • Unequal bargaining power, monopsony control, etc. 	Research Into Use (RIU; 2012): Exploring Contract Farming as a Business Model for Commercial Expansion of the Indigenous Poultry Subsector (Policy Brief) > Link
Zambia	Biofuel (Jatropha)	<ul style="list-style-type: none"> • Investment risks of unproven business borne by farmers • Social risks (livelihood) • Environmental risks (land use) 	German, L. et.al (2011): The Local Social and Environmental Impacts of Smallholder-Based Biofuel Investments in Zambia > Link
Zimbabwe	Cotton	<p>Reasons for poor CF performance:</p> <ul style="list-style-type: none"> • Low profitability of smallholder cotton farms • Failure to understand the contract/ • Farmers claiming inadequate input packages • Scarcity of labour for labour-intensive production • Insufficient training/ advice (qualification and number of field staff) 	Cavan, K. (2014): The impact of cotton contract farming schemes on farmers' livelihoods in Zimbabwe > Link
Zimbabwe	Tobacco	<ul style="list-style-type: none"> • Effects of policy/ institutional innovations on marketing and production decisions • Contract farming as response to market failure 	Chimbwanda F. & H. Chikukwa (2013): A Simulation Analysis of Policy and Institutional Factors Affecting Growers' Choice of Tobacco Marketing Arrangement in Zimbabwe > Link

25 The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

5.3/ References for contract examples

Continent/ countries	Products	Contract-related information	Source ²⁶
Worldwide			
Worldwide	Generic	<ul style="list-style-type: none"> • The legal framework • Parties to the contract and contract form • Obligations of the parties • Excuses for non-performance • Remedies for breach • Duration, renewal and termination • Dispute resolution 	UNIDROIT (2014): Legal Guide on Contract Farming: Consolidated Zero Draft of the Guide > Link
Worldwide	Various	Numerous contract examples in different languages	FAO Contract Farming Resource Centre > Link FAO Centre de ressources sur l'agriculture contractuelle > Link FAO Centro de Recursos sobre Agricultura por Contrato > Link
Worldwide	Generic	<ul style="list-style-type: none"> • Price mechanisms 	UNIDROIT (2014): Price mechanisms in agricultural production contracts > Link
Various	Maize, tobacco, papaya, swine	<ul style="list-style-type: none"> • Contract specifications: legal framework, formula, format, specifications • Contract examples 	Eaton, Ch. & A.W. Shepherd (2001): Contract farming: Partnerships for growth; FAO Agricultural Services Bulletin 145 > Link
Generic	Generic	<ul style="list-style-type: none"> • Contract enforcement • Successful and failed cases • Assessment of contracts • Overcoming threats to successful contract farming arrangements 	Prowse, M. (2013) : Contract farming in developing countries: a review > Link Prowse, M. (2013): L'agriculture contrac- tuelle dans les pays en développement : une revue de littérature > Link
Generic	Generic	Contract farming checklist: <ul style="list-style-type: none"> • Common understanding of contracts • Dispute settlement • Prices, reward, quality, embedded services 	Wageningen UR et.al. (n.d.): Contract Farming Checklist: A tool for reflection on critical issues in contract farming arrange- ments in developing countries > Link
Generic	Generic	Principles of contract farming agreements: roles of farmers/ contractor, contract specifications, cost sharing, remuneration	Brown & Co. (n.d.): Principles of the Contract Farming Agreement > Link
Generic	Generic	Business principles and basic elements for designing contract farming arrangements	Will, M. & T. Rockenbach (2012): Contract farming: Some fundamentals to be considered in contract design; Rural 21 – 04/2012 > Link
Africa			
Ethiopia, Malawi, Tanzania, Kenya	Generic	Legal dimension of contract farming: <ul style="list-style-type: none"> • Legal framework • Parties, formation, form • Obligations and breach • Remedies and dispute resolution 	UNIDROIT (2014): The Legal Dimension of Contract Farming: Promoting Good Contract Practices between Producers and Buyers in Contract Farming Operations in the African Context > Link
Various	Various	Numerous contract examples in different languages	FAO Contract Farming Resource Centre > Link FAO Centre de ressources sur l'agriculture contractuelle > Link
Ethiopia	Coffee, sesame, beans, maize, wheat	Commodity exchange contracts: <ul style="list-style-type: none"> • Grading parameters • Standard trading terms • Standard settlement terms • Standard delivery terms 	Ethiopia Commodity Exchange: Commodities website > Link

²⁶ The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Contract-related information	Source ²⁶
Africa			
Kenya	Fruit, vegetables, potato, poultry	<ul style="list-style-type: none"> • Contract design • Factors influencing success and failure of contract farming 	Strohm, K. & H. Hoeffler (2006): Contract Farming in Kenya: Theory, Evidence from selected Value Chains, and Implications for Development Cooperation; GTZ > Link
Kenya	Fruit, vegetables	Contract guidelines of the HCDA Code of Conduct: <ul style="list-style-type: none"> • Buyer and seller obligations • 3rd party obligations • Essential elements of contracts 	Waarts, Y. & G. Meijerink (2010): The HCDA Code of Conduct in Kenya: Impact on transaction costs and risks; Wageningen UR > Link
Zambia	Generic	Description of contracts and their specifications	Abwino, E.N. & Haike Rieks (2006): Out-grower system through contract farming: Zambia > Link
Zambia	Seed cotton	Contract sample	Anonymous (n.d.): Zambia – Seed cotton production contract; FAO Contract Farming Resource Centre > Link
Americas			
Various	Various	<ul style="list-style-type: none"> • Regulatory approach • Fairness in contract drafting • Contract enforcement and dispute management 	UNIDROIT (2014): Contract Farming Today, the Right Equilibrium ... > Link
Various	Various	Numerous contract examples in different languages	FAO Contract Farming Resource Centre > Link FAO Centro de Recursos sobre Agricultura por Contrato > Link
Brazil	Specialty coffee	Comparison between loose and tight contracts	Saes, M.S.M. (n.d.): Relational Contracts and Comparative Efficiency in the Brazilian Specialty Coffee Supply > Link
USA	Various	<ul style="list-style-type: none"> • Rules for contracting and dangerous clauses • How to amend contracts • Sample contract terms and glossary of terms 	Zawada, C. (n.d.): A Farmer's Guide to production Contracts; Agriculture Institute of Management in Saskatchewan > Link
USA	Grain	Checklist: consult experts, production issues, payment and delivery issues, legal issues	Attorney General Tom Miller's Production Contracts Task Force (1996) > Link
USA	Beef and pork meat	Price formulas: <ul style="list-style-type: none"> • Formula prices • Cost plus • Price window • Price floor 	Hayenga, M. et.al. (2000): Meat Packer Vertical Integration and Contract Linkages in the Beef and Pork Industries: An Economic Perspective; American Meat Institute > Link
USA	Poultry	Guide to help farmers assess the true risks and benefits associated with contract poultry production	Klauke, L. (2005): Questions to ask before signing a Poultry Contract; Rural Advancement Foundation International > Link

26 The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Continent/ countries	Products	Contract-related information	Source ²⁶
Asia			
Various	Various	Legal dimension of contract farming: • Parties to contract farming • Negotiation/ formation of contracts • Parties' obligations • Non-performance situations and unforeseen events • Dispute resolution methods	UNIDROIT (2014): The Legal Dimension of Contract Farming: Promoting Good Contract Practices between Producers and Buyers in Contract Farming Operations in the Asian Context > Link
Various	Various	Numerous contract examples in different languages	FAO Contract Farming Resource Centre > Link
China	Pork	Characteristics of contracts: obligations, production practices, credits and repayment, pricing, transport, quality incentives, contingencies for contract failure	Han, J., J.H. Trienekens & J. Xu (2013): Contract arrangements in China's pork production chain; in: FAO (2013): Contract farming for inclusive market access; p. 57ff > Link
Jordan	Generic	• Guide to the preparation of smallholder contracts • Sample farmer to company contract for the cultivation of vegetable crops • Sample price formula for smallholder production • Legal entity for dispute settlement	El-habbab, S. (2004): Contract farming in Jordan; submitted by Knowledge and Action Fostering Advances in Agriculture (KAFA'A) to Development Alternatives Inc. > Link
Europe			
Various	Various	Numerous contract examples in different languages	FAO Contract Farming Resource Centre > Link FAO Centre de ressources sur l'agriculture contractuelle > Link FAO Centro de Recursos sobre Agricultura por Contrato > Link
Denmark	Various	Aspects of contract design: • Coordination (3 rules of thumb) • Motivation (5 rules of thumb) • Transaction costs (2 rules of thumb)	Bogetoft, P. & H.B. Olesen (2002): ten rules of thumb in contract design: lessons from Danish agriculture > Link
Germany	Biomass	Sample contract (in German only): Anbau-, Liefer- und Abnahmevertrag über Biomasse zur Verwendung in Biogasanlagen	Maschinen- und Betriebshilfsring Wolnzach-Geisenfeld-Vohburg e.V. (n.d.): Sample contract > Link
Germany	Sugar	Sample contracts (in German only): • Branchenvereinbarung • Zuckerrüben • Industrierüben	Nordzucker (2011/12): Branchenvereinbarung zum Zuckerrüben- und Industrierüben-Liefervertrag > Link Nordzucker (2011/12): Zuckerrüben-Lieferungsvertrag > Link Nordzucker (2011/12 bis 2015/16): Ergänzungsvertrag zum Industrierüben-Liefervertrag > Link

26 The Hyperlinks are available in the online version of the GIZ CF Handbook Volume II at: <http://www.giz.de/fachexpertise/html/7982.html>.

Alternatively, most of the publications can be searched for in the internet using the titles of the publication and author names.

Published by

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices

Bonn and Eschborn
Germany

Sector Project Agricultural Policy and Food Security

Friedrich-Ebert-Allee 40	Dag-Hammarskjöld-Weg 1-5
53113 Bonn	65760 Eschborn
Germany	Germany
Tel. + 49 (0) 228 44 60 - 0	Tel. + 49 (0) 61 96 79 - 0
Fax + 49 (0) 228 44 60 - 1766	Fax + 49 (0) 61 96 79 - 1115

info@giz.de, welternaehrung@giz.de
www.giz.de, www.giz.de/welternaehrung

Author

Margret Will

Design and layout

Agnes Weegen

Printed by

PPPP Service & Verlag, Gladenbach
Printed on FSC-certified paper

Photo credits

Cover: ©GIZ/ Harald Franzen
Page 8/9: ©GIZ/ Dragan Vildović

As at

May 2015

GIZ is responsible for the content of this publication.

On behalf of

Federal Ministry for Economic Cooperation and Development (BMZ)
Special unit "One World – No Hunger"

Addresses of the BMZ offices

BMZ Bonn	BMZ Berlin
Dahlmannstraße 4	Stresemannstraße 94
53113 Bonn	10963 Berlin
Germany	Germany
Tel. + 49 (0) 228 99 535 - 0	Tel. +49 (0) 30 18 535 - 0
Fax + 49 (0) 228 99 535 - 3500	Fax +49 (0) 30 18 535 - 2501

poststelle@bmz.bund.de
www.bmz.de