



BCI AND THE GREENING OF COTTON: AN ANALYSIS OF THE BETTER COTTON AIMS AND THE IMPACT ON SOIL SALINITY IN MAHARASHTRA, INDIA

Research into the match of the BCI-members' aims and actual impact: a case study



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ESTÉE PEETERS

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While monitoring indicators are usually more assessable and the data collection less expensive, it is impact indicators that provide evidence that sustainability goals have been achieved.'

FAO UN and ICAC, 2015



Preface

Ever since I started the master International Land and Water Management my interest in sustainable production has grown. I became convinced that the incorporation of the private sector in this pursuit of sustainable production is a necessity to attain substantial impact. Around a year ago my eye fell on a newspaper article about a project that IKEA and WWF had started in India and Pakistan for more sustainable cotton production. The many questions that I had centred around the cooperation between the company and NGO. Why does a company decide to improve the cotton production system? What is the interest of the different companies that decided to participate in the BCI? Does the programme mainly aim to build a sustainable image or are the standards actually making an impact? And how do the BCI-members know that they make an impact?

That is how my journey began, from the many phone calls and skype meetings from my home in Amsterdam, to the cotton fields of India to execute the soil research. The experience of discussing the programme standards with professionals from business, NGO and governmental organisations taught me a lot about sustainability in all facets of society. And of course, my stay in India and the people that I have met there is something I will never forget.

As in all prefaces there is room to thank all the people that have made it possible to do this research and write this thesis. First I would like to thank my supervisor Luuk Fleskens for his guidance of my research and writing. Then I need to show my gratitude to Sumit Roy, without your efforts at WWF India, my visit and the research would have never been possible. Without your help I would have never been supported by the KVK in Kharpudi. The excellent arrangements by Sachin Gaikwad and Sonune Sir were indispensable to the research in the field. But of course also Rahul Chauderi, Pandurang, small Sachin, Sujit, Pravin and all the others that made my stay and research possible: I am very grateful to you.

In the Netherlands I wish to thank Amanda Stone for the interesting interview, but also her valuable contacts in the world of BCI, with whom I got to do interviews as well. Thank you Isabelle Roger, Guillaume de la Ruée, Simon Ferrigno, Chris Brett, Mahesh Ramakrishan, Brigitte Mugiraneza and Dave Boselie, your views and knowledge are very valuable to my research.

Then last, but surely not least, would I like to thank my parents, for their support and thinking with me in the Netherlands and in India, for helping me when I got stuck, when I needed reflection and for the proof-reading of the final report. And of course the most wonderful man in my life, Iwan: thank you for being there, as always.

Abstract

In 2009 a multi-stakeholder initiative (MSI) for a more sustainable production of cotton started as the Better Cotton Initiative (BCI). To reduce the environmental impact the programme demands farmers to use less water and chemicals in their cotton production. The reduction of water use is envisioned to lower the water footprint of the water intensive production of cotton. However, apart from the potential to alleviate water scarcity, a change in water management might lead to unwanted side effects, such as soil salinity (Bouwer et al., 1990).

This research investigated the match between the aims of the BCI and the actual impact of the programme. Through interviews with representatives of member organisations the definition, implementation and evaluation process of the environmental conditions put forward by the BCI are analysed. To understand the applicability of the certification criteria, a case study of the effect of water use reduction on soil salinity in the Maharashtra state in India was conducted. The research showed that the reduction of water use in the region could not be associated with higher soil salinity. This is most probably due to the low water availability in the region and thus low irrigation practices of farmers. This questions the appropriateness of the BCI criteria concerning the many different regions in which it operates. What stood out as well is that currently no impact monitoring of the BCI practices is undertaken.

The thesis concludes that the one-size-fits-all method of the BCI should be adjusted to more regional specific criteria. In addition to that it recommends the BCI to initiate impact monitoring in order to legitimize its sustainability claims with actual proof.

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List of abbreviations

| | | |
|-------|---|---|
| BCI | - | Better Cotton Initiative |
| BMPC | - | Better Management Practices in Cotton |
| EC | - | electrical conductivity |
| WWF | - | World Wildlife Fund |
| KVK | - | Krishi Vigyan Kendra |
| mS/cm | - | miliSiemens / centimetre |
| SCI | - | Sustainable Cotton Initiative |
| IPM | - | Integrated Pest Management |
| USDA | - | United States Department of Agriculture |
| FYM | - | Farmyard Manure |
| FSC | - | Forest Stewardship Council |
| RSPO | - | Roundtable on Sustainable Palm Oil |
| RTRS | - | Roundtable on Responsible Soy |
| GMO | - | Genetically Modified Organism |
| CMiA | - | Cotton Made in Africa |

1. Introduction

As a result of a number of round table conferences initiated by the World Wildlife Fund (WWF) an initiative was set up in which a number of criteria were formulated to define 'Better Cotton'. This led to the now-called Better Cotton Initiative (BCI) that pursues a more sustainable production of cotton through using less water, less chemicals and providing good labour conditions. The aim of the Better Cotton Initiative with this label is to safeguard the future of cotton production (Website BCI^a). It strives to 'make global cotton production better for the people who produce it, better for the environment it grows in and better for the sector's future' (Website BCI^a).

One of the first projects under the terms of the BCI label started in the form of a partnership between IKEA and WWF in various regions in India and Pakistan. The company and the NGO shook hands and extended their cooperation on FSC wood to the production of Better Cotton. The results of their efforts have been very promising: over 500,000 farmers in India were trained to use less water, pesticide and fertilizer and have seen yield increases of allegedly 40% (Joshi Rai – IDH, 2010). The project is expanding and IKEA aspires to reach a 100% cotton use from more sustainable sources in its products by the end of 2015 (WWF and IKEA, 2014).

Land and water management can be a valuable tool with potential to sustainably improve the way cotton is produced, but a careful and regular impact assessment is needed before one can define practices to be 'Better'. Forecasting the effects of a change in land and water management and the associated change, for instance water use, is troubled by the complexity and interconnectedness of watersheds. Impact of increased water use efficiency can decrease the problem of water scarcity, but might heavily affect soil quality and groundwater streams (Bouwer et al., 1990). There are various ways by which inappropriate water management practices can lead to an accumulation of salts in the soil, and a salinized soil has a strongly reduced capacity for plant growth.

The multi-stakeholder cooperation that the BCI is, brings together organisations of very differing backgrounds. Although ideas among the BCI-partners on sustainable cotton production possibly vary, the organisations managed to put their differences aside and develop the BCI standards. Through interviews representatives of a sample of partner organisations were questioned on their goals for and views on 'Better Cotton' and on how their organisation's ideas and beliefs were represented in the BCI. This included also their reasoning for joining the BCI; what were their motivations and understanding of the gains that they would get through participation in the BCI?

The lack of an existing basis in public authority of these organisations disadvantages their legitimacy. And this, while the legitimacy of the BCI is of great importance to its potential to attract donors and partner organisations. Establishing a standard and maintaining its quality and legitimacy demands careful evaluation of the project (Utting, 2009; White, 2009; Rogers, 2007). Through the interviews with the BCI partners and experts the evaluation mechanisms of the BCI were investigated. From the interviews and also web research it became clear that the BCI demands solely monitoring of input-values of the farming practices and requires no soil or impact

assessment. While proof that supports one's claims, derived from evaluation and impact assessment, would improve one's credibility (Cash et al., 2002).

Legitimacy of an organisation might increase as the sustainability practices of this organisation coincide with our understanding of nature. For example when it comes to use of chemical agricultural substances, relying on logic we assume a reduction of chemical applications in agricultural practices to be beneficial for people and planet. But we have to be careful with these kinds of assumptions. For instance, the decrease of water use, and thus a lower pressure on water scarcity, is viewed as an improvement for people and planet. But as mentioned before, water management is complex and locally specific and therefore requires locally adapted criteria (Boelens and Vos, 2012; 2014).

To investigate whether an impact assessment of the BCI-criteria on the soil conditions could better underpin the sustainability characteristics of the initiative, an analysis of impact on soil quality in the form of a case-study was done in India. Through soil research the impact of one of the criteria of the BCI programme, reduced water use, was investigated by examining soil salinity. Reduced use of water possibly leads to a lower pressure on water scarcity, but there hides a risk in a reduced use of water in warm climates: it might induce salinization of the soil (Hanson et al., 2006).

The field study took place around the city of Jalna, in the region of Maharashtra in India. Jalna is situated 70 km from Aurangabad, the city in which the WWF regional office is located. In this specific project approximately 6000 farmers are engaged in an area of around 10 000 ha. Of these farmers only 10% irrigate their land. To understand the effects on reduced irrigation 100 of these farming fields were researched on their electrical conductivity; 50 fields belonging to farmers that have adopted the Better Cotton production strategy (BCI-farmers) and 50 belonging to non-BCI farmers.

Through the analysis of the development, implementation and evaluation of the BCI programme light is shed on the challenges and issues of such a large-scale programme with big ambitions. The case-study of the BCI-project in the Jalna district in India investigates the coherence between the desired and actual impact of one of the BCI criteria, on soil quality. It provides a set of recommendations for this project that could be of value for other BCI implementation programmes as well. Also it underlines the importance of long-term investigation into the impact of the BCI-project to rightfully make claims of sustainability.

In the next chapter the theoretical framework of standard development, implementation and evaluation is presented. In chapter 3 the methodology of the research is outlined with regards to the interviews conducted and the soil research in India. Chapter 4 presents the results of the literature review and the interviews concerning development of the standard, the implementation and its evaluation. Chapter 5 describes the case-study of the BCI-project in Jalna and the impact reduced water use has on soil salinity. The final chapters 6 and 7 treat the discussion and conclusion of the research and a few recommendations for the BCI and further research.

2. Conceptual framework

This conceptual framework describes the theoretical context of this research and defines a set of relevant concepts. The concepts together form the basis of the theoretical framework in which the evaluation process of the BCI is reviewed. Some theoretical background is given as well on soil salinity, the object of research in the case study. The case study fits in the theoretical framework as an element that is currently missing in the evaluation cycle of the BCI. It is an example of the importance of evaluation of the impacts of project implementation for MSIs.

The first section describes the concept of multi-stakeholder initiatives for sustainable development. Further it discusses the question of legitimacy and credibility that a sustainable initiative is subject to. Important in that respect is the process of standard development, implementation and evaluation. From this consideration a theoretical framework is presented in which this research should be placed.

In the second section of this chapter soil salinity is discussed. Here the relevance of impact assessment in evaluation is explained through the complexity of water management and the possible consequences it has in terms of soil salinity. It involves the causes and effects of soil salinity and measures for remediation and prevention.

2.1 Multi-stakeholder initiatives

In search for a more sustainable production of, amongst others, agricultural products the phenomenon of multi-stakeholder initiatives emerged. For these initiatives various organisations grouped together to contribute to environmental decision making (Reed, 2008). The group is particularly involving non-governmental, but sometimes also governmental organisations. They work together within a particular commodity supply chain with the aim to create a (niche) market for an environmentally more sustainable product (Schouten and Glasbergen, 2011). MSIs for environmental sustainability have been object of discussion in various scientific fields (Sneyd, 2014; Richardson, 2014; Von Geibler, 2013; Schouten and Glasbergen, 2011). Scientists looked into the coming into existence and development of the MSIs, but have also been critical and have analysed the credibility and legitimacy of these phenomena.

A type of MSI that has recently become more prominent are the roundtables that WWF initiated. This began in 1990 with the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC) and has now spread into various other global commodity chains. These roundtables have the ambition to convert an entire supply chain to a more sustainable production, and have a lower barrier for farmers to participate than for instance organic. Organic farmers are not allowed to use any chemical pesticides and fertilizer and genetically modified cotton seeds are forbidden in organic programmes as well, this while BCI farmers are demanded to reduce chemical use and are allowed to cultivate genetically modified organisms (GMO). In 2011 90% of the cotton crops cultivated in India was Bt cotton, a genetically modified crop (VIB report, 2013). This shows the advantage that certification schemes such as the BCI have over the organic production system in terms of potential reach.

The roundtables are often not only a cooperation of various stakeholders to pursue a more sustainable supply chain. Many of them have developed a set of standards and criteria under a certification scheme or label as well. Jahn et al. (2005) explain that these labels and certification systems find their origin in the necessity to prove the hidden quality of the product, namely the sustainable character of its production. Certification systems aim to create a market for a product of which an attribute creates an issue of credibility, since it involves qualities that cannot easily be observed or measured (Ponte and Cheyns, 2013). By encouraging companies to participate in the sustainable movements (such as the roundtables for sustainable palm oil, cotton, sugarcane and soy) they demand insights in the production system and can in this way validate the green label a partner organisation holds (Jahn et al., 2005).

The BCI is an example of such a multi-stakeholder initiative. The potential reach is immense, as the aim of the BCI is to 'conquer' 30% of all global cotton production by 2020. The potential impact of an initiative like the BCI is therefore far greater than the organic cotton production system, which covered around 1% in 2010 (Website Textile Exchange). Inevitably questions arise on the credibility of labels and certification systems, such as the BCI, the Roundtable for Sustainable Palm Oil (RSPO) and the Roundtable for Responsible Soy (RTRS) that aim for sustainable production certification systems, but are typically less stringent than organic. One might pose the question how is it possible that Better Cotton is sustainable and spreads so quickly, while organic does not seem to get real foot off the ground. Questions also arise on the sustainable impact claims the BCI makes; are these valid or does the organisation mainly greenwash the image of its partner organisations?

2.2 Monitoring, evaluation and impact assessment

One of the key elements to maintain quality, transparency and integrity is to evaluate the impact of a certain programme that has a specific goal. Evaluation was defined by Alkin as follows:

“Evaluation is the process of ascertaining the decision areas of concern, selecting appropriate information, and collecting and analysing information in order to report summary data useful to decision-makers in selecting among alternatives.” (Alkin, 1969: 16)

The selection of the 'appropriate information' is a decisive moment in the monitoring and evaluation process. If you gather information that does not reflect the status of the goal you wish to achieve or the impact you wish to have, conclusions on attainment of that goal or impact, based on this 'inappropriate information' are misleading. In a report by the FAO a distinction is made between evaluation of immediate (monitoring) and long-term effects of an intervention or activity, see Figure 1.

Monitoring: a process that measures the immediate outputs (e.g. training workshop delivered, fertilizer applied) related to a specific set of activities or intervention (cotton production).

Impact assessment: a process that measures the long-term outcomes (e.g. poverty reduction, access to medical facilities) associated with an activity or intervention (OECD, 2002). In assessing the impact, demonstrating a causal link between outcome observations and the activity/intervention of concern is a priority.

Figure 1 – Definitions of monitoring and impact assessment (source: FAO UN & ICAC, 2015)

There is thus a difference between monitoring direct outputs of an action, like the BCI does with its required reductions in water use, and gathering a thorough understanding about the impact that a programme has had. The monitoring of the input indicators of the practices of the BCI-farmer functions also as a compliance tool. Which makes it indispensable to the success and credibility of the initiative. It is necessary however to determine, whether the monitoring of compliance is enough to ensure legitimacy.

2.3 Legitimacy

As these initiatives become more institutionalized they become part of the global governing patterns, which demands a study into their legitimacy (Schouten and Glasbergen, 2011). Schouten and Glasbergen define legitimacy as:

‘a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed systems of norms, values, beliefs and definitions’ (2011: 1891)

Legitimacy is particularly important for MSIs to regulate compliance of the cooperating partners. If it becomes known that farmers within the BCI do not comply with the criteria of the BCI standard, the legitimacy of the organisation is weakened. The actions of the organisation might no longer be seen as proper, desirable and appropriate (Schouten and Glasbergen, 2011). If the actions of the organisation are not perceived as leading to the implied goal of the organisation the organisation loses legitimacy.

Unlike governmental organisations the MSIs are a relatively new phenomenon in the global governance sphere. There is no democratic system that sustains the legitimacy of a MSI, which makes forms to generate credibility of activities an even more important element for the organisation to be viewed as legitimate.

Credibility is defined as “[a phenomenon which] refers to whether an actor perceives information as meeting standards of scientific plausibility and technical adequacy. Sources of knowledge must be deemed trustworthy and/or

believable, along with the facts, theories, and causal explanations invoked by these sources” (Cash et al., 2002: 4).

Cash et al. (2002) describe the interconnectedness of credibility and legitimacy. They state that both concepts complement each other. If the actions of an MSI are seen as credible then that can contribute to the view of the actions of an organisation to be ‘desirable, proper and appropriate’ (Schoutje and Glasbergen, 2011). But for the actions of an organisation to be seen as credible the ‘standards of scientific plausibility must be met’ (Cash et al., 2002). Scientific plausibility, one might argue, can be achieved through selecting the appropriate information, that was already referred to earlier (Alkin, 1969), and monitoring and assessing this information to understand whether the goal was achieved. This means that the information selected to be monitored should reflect the change that the goal aimed to bring about. As the BCI aims to ‘make global cotton production better for the people who produce it, better for the environment it grows in and better for the sector’s future’ (Website BCI^a), we can distil that environmentally less harmful cotton production is amongst the BCI aims. Environmentally less harmful production can be interpreted in many ways, but at least improved soil conditions could be regarded as part of that package.

That would mean that if one of the goals of the BCI is to improve soil conditions providing proof of the organisation’s action can be achieved by measuring the change in soil conditions. An easier and less resource consuming manner is by measuring the change in input values and base the achieved impact (change in soil conditions) on theoretical assumptions. This might hold with regards to reduction in chemical applications on the field, but with reduction in water use the implications are too complex to oversee (Boelens and Vos, 2012).

That testing of assumptions even though based on scientific theory is necessary is advocated by Howard White (2009). White argues that in determining impact one maps out the causal chain from inputs to outcomes and bases the assumed impact on proved theory *and* subsequently tests the underlying assumptions. Also Rogers argues that because logical reasoning and assumptions are theory based, testing of these assumptions is indispensable to draw conclusions and certainly to make claims in practice (Rogers, 2007). An investigation of Blackman and Rivera (2010) into the evidence base of environmental impact of sustainable certification highlighted that evaluation should be built into the project design. In the evaluation both certified and uncertified entities should be researched before any claims are made (Blackman and Rivera, 2010). This would mean that an impact assessment of soil conditions of both BCI and non-BCI farmers would be necessary element in impact assessment.

2.4 Soil salinity

The case study of this article looked into the effects of reduced water use on soil salinity. A reduction in water use like the BCI proposes has the potential to alleviate the pressure of water scarcity. However, a reduction of irrigation might not only affect groundwater streams and watershed systems, it also poses an increased risk of salinization of the soil (Hanson et al., 2006).

Soil salinization is a type of degradation of the soil caused by a high amount of soluble salts in the root zone of the soil (Hardie & Doyle, 2012). Salts enter the soil through irrigation, precipitation and through capillary rise from groundwater. Due to evapotranspiration during the course of the plant's growth salts are left behind in the soil (Bouwer, 2000). The total dissolved salts in the soil profile hamper plant growth and negatively affect the plant's ability to take up nutrients and water. Causes of salinization are seawater intrusion, saline groundwater and insufficient flushing of soils with accumulated salts.

The occurrence of saline soils can be induced by human activities but also happens naturally. Plant growth is reduced by: i) a reduction of osmotic potential of the soil which limits water uptake by the plant, ii) toxicity due to sodium, boron and chloride ions and iii) decreased ability of the plant to take up nutrients (Hardie & Doyle, 2012).

Depending on the irrigation management, the irrigation water used and the evapotranspiration due to climate and crop development, the soil might become saline and reach a point at which it affects plant growth (Hanson et al., 2006). India is estimated to currently have 11 million hectares of land that are saline, which causes low food production and poverty (Ismail, 2009). As said an evaluation system that monitors a causal chain with regard to the impact of irrigation practices was not put in place by the BCI. The case study aims to provide an example of a way to monitor impact on soil salinity of the BCI practices. In the next section is explained how this fits into the theoretical framework of this research.

2.5 Theoretical framework

In the light of arguments presented in preceding subsections, this report claims that although the process of programme formulation and auditing of the implemented practices is well organised at the BCI the lack of environmental impact assessment structures hinders credible sustainability claims of the organisation. This troubles the legitimacy of the organisation, which is crucial to its growing potential.

Indicators of the effectiveness of the programme should reflect the status of the element that was targeted. Input data reflect only a change in the farmer's behaviour and might lead to assumptions on impact on soil qualities, but do not portray the actual impact on the soil. Input values are not suitable to define whether the goal of reduced environmental impact was reached and are therefore not suitable as evidence to support the sustainability claims of the initiative.

The case study in the Maharashtra region of India is an example of research into the impact of the BCI practices. Rather than only analysing the input values of water and chemical agricultural products, the research measures the changes in soil salinity values to better understand the environmental effect that a water use reduction has.

In the schematic overview of Figure 2 the process of certification development, implementation and evaluation is hampered by absence of impact assessment. Evaluation is done, but only on a superficial level with a short-term vision. Doward (1988) explains that this is often the case in monitoring and evaluation programmes.

Impact and effect monitoring are often not incorporated as they are outside the scope of short-term plans; this while the value of impact and effect monitoring also lies in providing a check of the adequacy of the input and output monitoring (Doward, 1988). Yields in the BCI projects might improve on a short term basis, but will decrease as the soil salinizes over time, which would make any sustainability claims illegitimate.

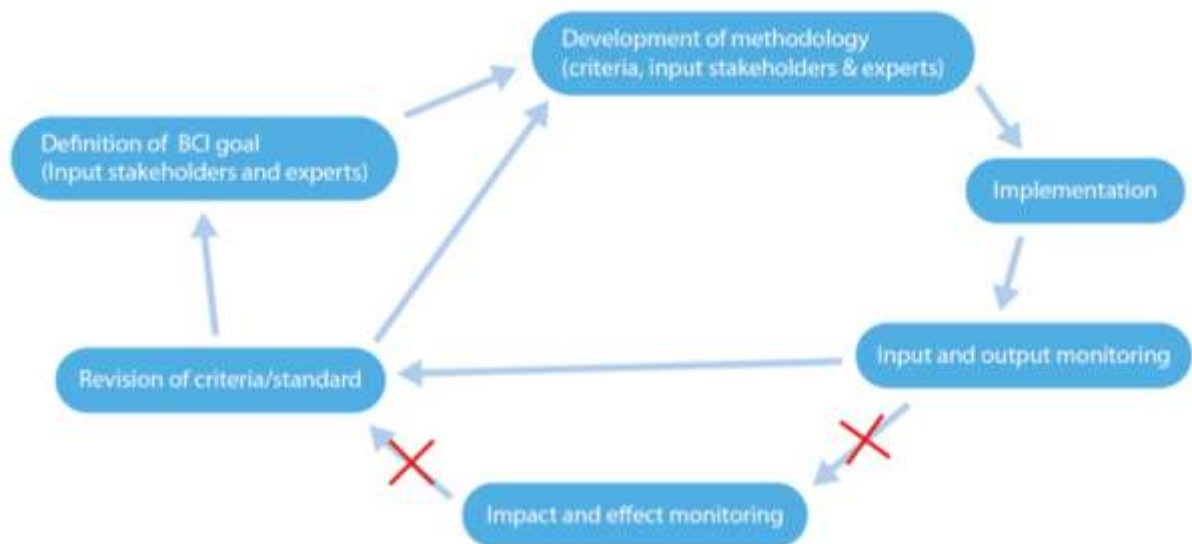


Figure 2 – Theoretical framework of the BCI project development

Figure 2 shows that the BCI follows the standard procedure of project development and implementation until it reaches the stage of impact and effect monitoring. Although this element is also valuable for instance as a compliance tool, the duration of the BCI project implementation (start in 2009), gives the opportunity to look at effect and impact of the study. However, if impact and effect monitoring, of for instance soil and water quality, was not done from the beginning of the project implementation there is little basis to base any impact and effect studies on.

3. Materials and methods

In this section the research questions and the methodology of the research are outlined. The chapter is divided into three sections. Firstly the research questions are presented. Subsequently the approach to the interviews with the BCI partners and cotton experts is outlined. The third part involves the case study into the impact of the standard, which discusses the soil research methodology of the soil salinity in the Jalna district in the Maharashtra region in India.

3.1 Research questions

The main research questions aims to define the match between the aims of the BCI practices and the actual impact the standard has. That leads to the following main research question:

What is the desired impact of the Better Cotton standards and how does this match with its impact on soil salinity of the Better Cotton fields in the Jalna district, Maharashtra, India?

The research question can be divided into two parts. One which deals with the desired impact and motivations for the criteria of the BCI in general. The other, largest part of this study, regards a case study into soil salinity on Indian BCI cotton fields. The sub-questions are guidelines in the research to be able to answer the main research question. The accompanying methodology of these sub-questions is discussed in the following sections of this chapter.

1. What aspirations and aims do the BCI members have for more sustainable cotton and how are these reflected in the BCI standards?

This sub-question wished to understand the reasons and aspirations that BCI members have that makes them join and remain partner of the BCI. In section 3.2 the methodology and approach to the interviews is outlined.

2. How are the standards of the BCI evaluated and how is dealt with the outcomes of these evaluations?

This sub-question focuses on the evaluation process in which the BCI finds opportunity to improve and adjust its standards where necessary. As for sub-question 1, more information can be found in section Interviews3.2 Interviews.

3. What is the difference between soil salinity of the soil of cotton production systems that have worked according to the Better Cotton standards and the soil of cotton that was not produced accordingly.
 - a. What is the soil salinity of the soil that produces cotton according to the Better Cotton standards?
 - b. What is the soil salinity of the soil that produces cotton not in accordance with the Better Cotton standards?

This sub-question aimed to define the effect that the change in land management to Better Cotton practices has on the salinity of the soil. Due the impossibility of an investigation over time a comparison is made between soils that did not convert practices according to the BCI criteria.

3.2 Interviews

The first part of this research comprised a number of interviews with representatives of BCI member organisations and experts in the cotton sector. The experts were consulted to better understand the cotton sector and the developments of the BCI in general, from a viewpoint outside the organisation. The interviews with the representatives of the member organisations were conducted to understand their motivations to participate in the BCI, to understand how their aims relate to the BCI aims.

The semi-structured interviews were slightly adjusted per interviewee. An example of an interview can be found in Annex 2 – Interview questions Solidaridad. Through the method of snowballing the interview candidates were identified and approached. Especially the interview with expert Amanda Stone contributed greatly with her network to the interviewees presented below.

3.2.1 Experts

Amanda Stone – consultant in the cotton and textile sector. Worked for Nike Inc. while the plans for the BCI were initiated and was part of various discussions. Subsequently worked for IDH - the Dutch Sustainable Trade Initiative at which she set up the Cotton department and the cooperation with BCI.

Simon Ferrigno – consultant and publicist on cotton and sustainable agricultural production. Was previously present in the advisory committee of the BCI for which he advised on the development of the BCI standards. Has extensive knowledge and experience in the field of sustainable and organic cotton production.

Guillaume de la Ruée – senior project manager at UTZ certified, responsible for tea, cocoa and coffee. Interviewed for this thesis to understand the world of certification and the BCI from a third party, that certifies, but is no direct competitor of BCI.

3.2.2 BCI partners

Below the interviewees of this research are arranged along the type of membership category. The selection of interviewees represents the great variety of partner organisations that BCI has.

Civil society

Solidaridad: Isabelle Roger – senior project manager Cotton at Solidaridad. Previously worked at the BCI head office in Geneva as governance and operations coordinator and traceability advisor.

WWF: Sumit Roy – senior project manager cotton WWF India at the department in New Delhi, India. Responsible amongst others for the implementation of the IKEA-WWF cooperation under BCI in three projects in the whole of India.

Producers

Arvind Limited: Mahesh Ramakrishan – head of agribusiness at Arvind Limited, responsible for the selection and implementation of organic and BCI projects, situated in Maharashtra, India.

Krishi Vigyan Kendra (KVK): Sachin Gaikwad – BCI producer unit manager and responsible for the implementation of BCI practices on farm level. Involved in organising trainings and reporting farmer inputs from Jalna district, operating from Kharpudi, Maharashtra, India.

Suppliers & manufacturers

Olam international: Chris Brett - Global Head Corporate Responsibility & Sustainability Previously he worked for various large corporations and international organisations. He was involved in various projects that aimed at sustainable development.

Independent

IDH – The sustainable trade initiative: Brigitte Mugiraneza – fund manager cotton and *Dave Boselie* – senior manager learning & innovation.

3.3 Soil salinity research

In the second part of the research a soil research project was started in the Jalna district, Maharashtra, India. Through this soil investigation the electrical conductivity (EC) as an indicator of the soil salinity was of main interest. The aim of this research was to determine what difference there is in soil salinity between farming fields of farmers that participate in the BCI and farming fields that were not subject to the BCI farming practices. The farmers that followed the BCI standards had been involved since 2011, these farmers would have their fourth harvest in BCI this year. This would enable a definition on the impact of reduced water use on the soil salinity, one of the standards that the BCI requires the farmers to comply with.

The selection of India to undertake this research had to do with a number of reasons. First of all, India is the country with the largest water footprint (Hoekstra and Chapagain, 2007), and is the third largest cotton producing country in the world (Qaim, 2006). Although India is not a water deficient country, due to a growing population, over-exploitation of water and a lack of governmental coordination water is becoming a scarce commodity in various Indian regions (Molden et al., 2010). Also, India and the district of Jalna in particular was one of the first areas in which the BCI project was implemented (Joshi Rai, 2010). Finally WWF India decided on the location of the Jalna district, based on the availability of staff support at the KVK and proximity/access to the farming fields.

In January and February of 2015 during 17 field visits, 16 villages were visited. In total 100 farmers were incorporated in the research, of which 50 were BCI and 50 were non-BCI farmers. During the visit to a farm the soil salinity was tested and the farmer was asked a series of questions on his land and water management. All the farmers investigated applied irrigation to their fields and almost all of the farmers used drip irrigation. During the visits to the villages the aim was to investigate three BCI-farmer fields and three non-BCI farmer fields that preferably were situated close to each other, to keep other variables such as soil and slope characteristics as stable as possible.

The selection of the villages was dependent on whether the KVK had started a BCI-project in the village. The 17 villages were in close proximity of Kharpudi, the village in which the KVK is based and from which field visits were planned and operated. This means that certainly not the whole area of Jalna has been covered and that the image that the results of this research portray can make no claim to represent the status of soil salinity in the Jalna district as a whole.

The farmer visits consisted of two main elements: the soil salinity test and the farmer questionnaire. The farmer questionnaire can be found in Annex 1 – Farmer questionnaire, roughly the questions from this fill-in form were followed, although additional questions were often asked on the farmer knowledge of Integrated Pest Management (IPM) and about our observances in the field. Below a description of the soil salinity testing is given, the method follows the soil salinity procedure as proposed by the United States Department of Agriculture (website USDA). A description of the method can be found in Annex 3 – USDA Soil salinity testing: EC1:1 method.

In the early stages of the research it became clear that non-BCI farmers do not calculate or register their water use. Although farmers sometimes recorded how often they had irrigated no systematic questioning was done on this matter since exact amounts could never be obtained. The value of this kind of information for the research is fully understood as well as the trouble the absence of this data brings to meaningful analysis of the differences between BCI and non-BCI farming.

3.3.1 Soil salinity testing

To determine the soil salinity values the electrical conductivity (EC) of soil water mixtures was measured. Although various methods are available to do these measurements, for the sake of time and resources available the USDA method of soil salinity testing named as the EC1:1 method was employed. This method explained by the USDA is based on the recommendations of the work of Patriquin et al. (1993). In Annex 3 – USDA Soil salinity testing: EC1:1 method, the description of the method by USDA is available. This measurement method analyses the soil salinity by creation of a mixture of soil and distilled water on a 1:1 ratio. Of this suspension the amount of miliSiemens (mS) per cm was measured as an indicator of the EC. Below the step-by-step procedure of the applied method in this research is outlined.

3.3.2 Collection of soil samples

Per farmer field samples were taken from at least three different locations in the field. In principle resulting in one sample 'upslope', one in the center of the field and one

'downslope' as shown in Figure 3. In some cases the characteristics of the field demanded a measurement on a fourth location. For instance in case of highly varying slope, differing soil types and unexpected values of the measurement.

For each measurement ten samples were taken from the designated location. In the cotton field these samples were taken along a line perpendicular to the direction of the cotton rows, to be able to cover for differences in salinity of the soil around the cotton plant. A schematic explanation is given in Figure 4. The samples were taken with the use of a soil auger.

3.3.3 Measurement of soil samples

The samples of one measurement location were mixed to represent one sample location. From this mixture 30 ml of the mixed soil was taken for the measurement. In addition to that 30 ml of 'filter water', with a salinity of 0.06 mS/cm, was taken. The 30 ml soil sample and 30 ml of water was added to a shaking valve and the total weight noted. After the valve was shaken for approximately 30 seconds the soil EC was measured with an EC-meter (Hanna instruments – Dissolved Solids Tester).

Afterwards the same procedure was repeated for the other sample locations that were designated to be researched at the start of the measurement procedure. In case of very unusual measurement values it was decided to do another measurement to check the validity of the values. Since distilled water was difficult to obtain, filter water was used instead, due to its low salinity level and the use of the same water for all measurements any effect on the measured values is considered negligible.

Figure 3 - Sample locations within cotton fields

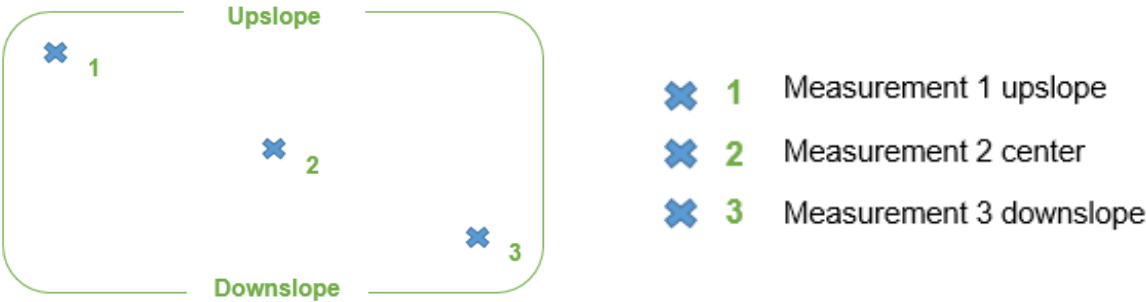
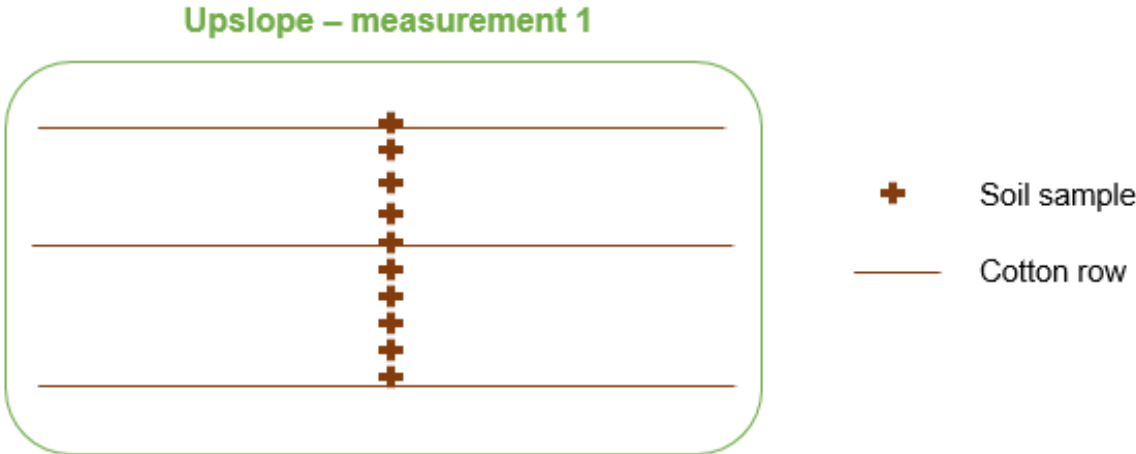


Figure 4 - Sample collection at each sample location



4. Results interviews

Chapter 4 presents the results of the interviews. This section lays out the results of the interviews with the BCI-experts and representatives of BCI-members. The most important topics of the interviews are discussed in the following order: development of the standard, implementation procedure, added-value BCI & member organisation, ambitions member for sustainable cotton, evaluation and the future of BCI.

The concluding section discusses the results of the interviews in general and then responds to the sub-questions. In Table 1 the analysis of the responses during the interviews are organised along the most relevant questions.

4.1 Development of the standard

The BCI standard was initiated by, amongst others, WWF and did not have a legal entity in the first years of the programme development (Interview Roger, 2014). The multi-stakeholder initiative was pushed mostly in the beginning by IKEA and WWF (Interview Stone, 2014), although other organisations such as Marks and Spencer, IDH and Levi's were also present in initial discussions. The motive for WWF to take part in the project was the organisation's concern with the water footprint of the commodity and its influence on biodiversity (Interview Roy, 2015). And for IKEA, cotton is next to wood one of its main raw materials (Interview Stone, 2014). In this beginning phase IDH played a large role as well as the co-fund of the institutional set-up of BCI (Interview Boselie and Mugiraneza, 2015).

To establish the criteria and the standard of the BCI a consultation process was started. It started in 2004 during which discussions with stakeholders in the cotton production were held in four different countries. In addition to that also discussions were held with brands and retailers and interested NGOs to find common ground on which all members would start and support the initiative.

For scientific guidance the BCI advisory committee was established with agronomists, ecologists and other experts on cotton production. Simon Ferrigno was part of this committee and explained that there were clear differences in how stringent the criteria should be between brands and civil society organisations during initial discussion and review (Interview Ferrigno, 2014). Some members wanted it to be easy for farmers to sign up, to reach a large public, while some wanted the BCI to make a greater difference in terms of sustainability. The reluctance of some parties to impose more stringent criteria should be viewed with the notion that these companies in the end need to make profit, says Amanda Stone (Interview Stone, 2014).

In 2009 the standard reached a definite form and was introduced publicly. Subsequently the first projects started in Pakistan and India (Interview Roy, 2015). The first project in India started 2010 in Warangal, Andhra Pradesh, where apart from the standard also the implementation and verification system were defined. After the standard was used during the first three years it was reviewed in 2012 as a form of good practice to evaluate the initiative every three years (Interview Roger, 2014). Now that the BCI has become associate member of the ISEAL alliance, it has to revise its standard again to become full member (Interview Roger, 2014). The International

Social and Environmental Accreditation and Labelling Alliance is a membership-based and autonomous organisation that aims to strengthen voluntary standards in its credibility by assessing them on their compliance with ISEAL's codes (Derckx and Glasbergen, 2014).

4.2 Implementation

As explained the implementation of the BCI project started in 2009, in India in 2010. Previously WWF India and IKEA had already introduced the Better Management Practices in Cotton (BMPC) in the regions Andhra Pradesh and Maharashtra, which aimed to produce cotton in a more sustainable way. With the introduction of BCI also the social component named 'Decent Work' was added to the farmer practices (Interview Roy, 2015).

For the implementation of the BCI practices the organisation has its implementation partners. These partners run the BCI-project on the ground, this involves seeking cooperation with local partners, farmer training and collecting the farmer data (Interview Roger, 2014). Roger mentions that every project should start with an inquiry of the local context. This because cotton production in Brazil is completely different from the situation in India.

In determination of the programme the implementing partner is free to determine which methods the farmers are taught to attain the reduction of inputs. There are a number of best practices in which farmers are trained in many implementing projects, but it remains dependent on the local context (Interview Roger, 2014). The farmers are taught to register their practices and the input of water and chemicals and the implementing partner collects and sends this information to the BCI (Interview Gaikwad, 2015). From then onwards farmers have to improve their practices each year until an optimum-level is reached again dependent on the local context (Interview Roger, 2014; Interview Gaikwad, 2015). Although Roger mentions that there is no end to improvement.

The implementing partners cooperate with local organisations for the approaching and training of farmers. These organisations know by experience which farmers or which villages would be most responsive to new programmes and techniques (Interview Gaikwad, 2015). In first instance the most responsive farmers are selected to be trained for the BCI programme and in the following years also less innovative farmers will be approached. The idea behind this method is that as the project evolves, less responsive farmers will change mentality as they learn about the benefits (Interview Roy, 2015; Interview Gaikwad, 2015).

The BCI allows the system of 'mass balance' for its cotton after the cotton leaves the ginneries (Interview Roy, 2015). Mass balance means that the product that entered the supply chain is the same or lower than the quantity of the product at the end of the supply chain, here the certified product can be mixed with non-certified products (Van Duijn, 2013). Therefore the BCI also trains the ginneries in the area of a BCI-project so that the identity of the cotton is preserved at ginner-level. From there onwards the certified Better Cotton is mixed with non-certified cotton. The situation is little different in the case study in the Jalna district. IKEA requires the cotton to be at least treated

following the rules of segregation, the certified product is kept separate from the non-certified cotton but the identity of the farmer is not preserved (Van Duijn, 2013).

4.3 Evaluation

The evaluation of the BCI projects is done by the collection of data of the farmers on the reduced inputs and the improved farming practices and labour conditions. This information is gathered by three parties, the farmer himself, the BCI staff and through a third party audit (Interview Ferrigno, 2014). Initially the BCI headquarters monitored all this data of all the BCI-farmers, however recently this system became insupportable (Interview Stone, 2014). There was simply too much data to be analysed, which made the BCI alter their data collection system. The BCI requires cooperating partners to assist in the monitoring of data and the implementing partners are required to send information of a few 'example farmer groups' only (Interview Stone, 2014; Interview Gaikwad, 2015). Through random selection a group of farmers or a farmer village is selected, of which the BCI requires the farming data. The progress and development of the other farmers is still registered, but not reported (Interview Gaikwad, 2015).

From the interviews it became clear that the BCI requires farmers and implementing partners solely to report on input values, meaning how much water and chemicals is used. Although some organisations are used to also performing soil testing to establish impact of the practices the BCI does not ask for this information. Ferrigno sees this as a great loss: '(...) soil is probably the best indicator we have for determining the impact of a project like BCI'. He goes on explaining that a reduction of pesticide use does not say anything about soil health. Ferrigno underlines that the BCI currently has no mechanism how much better it is performing, but claims that it is performing better due to these reduced inputs (Interview Ferrigno, 2014).

Although Ferrigno seemed most strongly opinionated on the importance on long-term evaluation and impact assessment also other interviewees found the absence remarkable. Mahesh Ramakrishan explained that apart from the requirements by BCI Arvind Limited has always been conducting soil assessment in their projects. According to him this is the only way to see changes, although he assumes that other than with organic practices not much change will be seen for BCI farming (Interview Ramakrishan, 2014). Gaikwad explained to advice farmers in the Jalna district to do soil testing to understand their farming better, even though the BCI does not demand any reporting on this (Interview Gaikwad, 2015). WWF also sees this importance and does not exclude an impact assessment in the future (Interview Roy, 2015).

When discussing the absence of long-term impact assessment of soil quality also Mugiraneza stressed that some farmers engage in soil testing (Interview Boselie and Mugiraneza, 2015). These are however investigations that the BCI never encounters, since it only demands input value. She continued by saying that the initiative might be too young and that impact studies are done often after five years. However, since the project started in 2009 in Pakistan an impact study should have been done in 2014 already and other studies should be executed this year. While in fact, it seems there is no system in place yet, to do these kinds of impact studies.

Boselie mentions that it is useful to do impact studies in order to determine if the BCI is reaching its goals, but that any changes will be hard to attribute to BCI (Interview Boselie and Mugiraneza, 2015).

4.4 Reason to join the BCI

Chris Brett of Olam International explained that his company saw declining yields and quality of the cotton and that they saw a solution in Better Cotton. As a production company, their income depends on the quantities that the farmers cultivate, so greater yield with less inputs, gives their farmers and therefore also themselves a more durable position (Interview Brett, 2014).

Mahesh Ramakrishan explains the interest of Arvind Limited in a similar manner, the company has always valued sustainability a lot, but more importantly the support of farmers (Interview Ramakrishan, 2014). In recent years farmers faced difficulties due to continuing droughts and decreasing cotton prices. Arvind Limited saw an opportunity in the economic model that BCI proposes to farmers, other than organic which poses more rules on the farmers and often also more economic pressure (Interview Ramakrishan, 2014). Through BCI Arvind Limited can bring economic basis for the farmers while at the same time contributing to environmental sustainability (Interview Ramakrishan, 2015).

For the KVK in Jalna the BCI gave them an opportunity to support and train more farmers. As an agricultural research and farmer support center they had always been involved in training farmer to produce cotton more economically and environmentally sustainable. This also found basis in their long history of cooperation with WWF. With the BCI project the KVK is able to spread its name over a larger area and number of farmers and therewith expands its impact (Interview Gaikwad, 2015).

Roger explained that Solidaridad has had a history in sustainable cotton production ever since Fairtrade. With the development of the BCI it saw an opportunity to shape the future of sustainable cotton production. This was a way to make sustainable cotton mainstream and therefore could create a greater impact than niche markets such as organic and Fairtrade can (Interview Roger, 2014). Similarly WWF explained to worry about the harmful effects of cotton production on the environment, especially about the intensive water use of the sector, which is why they initiated the BCI. WWF wanted to be part of a programme that could establish a market transformation. The participation of large companies and organisations gives the organisation the possibility to make large impact also in environmental terms. It is the best way to make sustainable production mainstream (Interview Roy, 2015).

Also IDH decided to co-fund and become partner of the BCI because through the organisation they saw the opportunity to mainstream sustainable cotton and transform the market (Interview Boselie and Mugiraneza, 2015). The starting point of the BCI is the business case of the standard and to make cotton farming a viable business. This initiative is particularly different from Organic or Fairtrade, which are 'premium commodities', for which the market is demanded to pay an extra price. The assumption in all the BCI-projects that IDH is involved in, is that the business in the end is able to make its own investments (Interview Boselie and Mugiraneza, 2015).

Ferrigno expects the large companies to join the BCI also for other reasons. He expects them to be eager to cooperate due to the reputational use of cotton these days, referring to its high water and chemical use in the production. The fear for their image is a powerful motivator in this case (Interview Ferrigno, 2014). Another reason might be that the companies anticipate legislation, especially EU-based companies, the EU might change legislation on water and chemical use and CO₂ emissions and reporting (Interview Ferrigno, 2014). The BCI helps to give the companies a sustainable character and at the same time explains investors, donors and customers that it is thinking ahead, shown by its sustainable and strategic activities (Interview Ferrigno, 2014).

4.5 Added-value to the BCI

According to Brett, Olam International brings the BCI the possibilities to scale up, as it is a company that supports large groups of farmers. The company is not only in the position to encourage brands to buy Better Cotton, but also pushes farmers to produce more sustainably as an implementing partners (Interview Brett, 2014). To encourage brands to buy Better Cotton, Olam International specifies where the cotton they buy originated from. A problem on the demand side of BCI in that sense is the traceability, brands do not know whether the cotton they buy is really Better Cotton (Interview Brett, 2014). Also Arvind Limited sees the accommodation of demand and supply of the (Better) cotton sector as their added value to the BCI (Interview Ramakrishan, 2014).

The KVK adds value also by increasing the amount of farmers producing Better Cotton, says Gaikwad (Interview Gaikwad, 2015). Their large and solid network amongst the farmers in the region and the expertise that the KVK is known for in the region enables the KVK to reach a lot of farmers. The farmers trust the recommendation of the KVK based on their long relationship with the organisation (Interview Gaikwad, 2015). Also the fact that the training of farmers is the KVK's core activity and the knowledge and scientist that the organisation already has, makes the KVK a useful partner.

Solidaridad sees itself as a strategic partner of the BCI as it is not only implementing partner but also BCI council member (Interview Roger, 2014). They make sure the BCI remains a credible organisation and that it does not only serve the private sector's interest, but also those of the farmer and the public good.

As a co-fund IDH sees itself as a crucial partner in the BCI. When the farmer's project is not bankable yet, IDH steps in to provide for the investment needed. In addition to that it adds value by engaging various partners of the BCI and partners-to-be to get around the table to overcome differences. It aims to bring together the ideas and interests of the private sector, NGO and governmental organisations (Interview Boselie and Mugiraneza, 2015). Finally as IDH is a partner that is keen on learning and innovation, it does several effectiveness and efficiency studies. In these studies the cost efficiency plays an important role, it aims to understand how many euros it costs to train a farmer and if that can be done cheaper.

4.6 Ambition sustainable cotton

The reason for the companies to join the BCI was already discussed above. It showed that although sustainability might be important, the main reasons for organisations to join are sometimes different. To acknowledge for these differences the interviewees were also asked about the ambitions of their organisation for sustainable cotton.

Ramakrishan of Arvind Limited responded to this that he has doubts about the GMO, Bt-cotton that is allowed in BCI production (Interview Ramakrishan, 2014). Although he sees that it is impossible that organic cotton becomes mainstream his ambition and that of Arvind Limited is that the BCI becomes stricter in terms of its sustainability requirements. He fears that the quality of Better Cotton is not checked regularly. The BCI should evaluate on farm level to understand how sustainable the BCI actually is (Interview Ramakrishan, 2014).

Brett explained that for Olam International the most important point of improvement of the BCI-programme are the labour conditions. After that comes the environmental conditions. Regarding environmental conditions it is most important that water and chemical use are reduced with which Olam International hopes to produce more products on less land (Interview Brett, 2014). Olam International has no ambitions in terms of organic cotton, as Brett depicts the production system as a 'waste of time'. Not only does he see problems in the decreased yield and the absence of willingness to pay the premium, there is also the issue that many farmers do not have the capacity to treat the land better.

Roger of the NGO Solidaridad explains that at the start of the BCI there was no specific target in terms of more sustainable cotton. The organisation simply wanted to see what was possible and where the initiative was going with as an overall goal sector change. They do see a possibility in the BCI being a stepping stone to organic cotton, but like other interviewees do they not believe in the mainstreaming of that production system. Even though the BCI programme has always been accorded with consensus and although Solidaridad has always seen its requirements met, there is room for improvement. For instance considering land ownership. Land governance is an increasing problem and the BCI does not make any notion of it in the criteria (Interview Roger, 2014).

Similarly also IDH does not have a definite goal for sustainable cotton in the future, other than mainstreaming it. It has no ambitions for organic or Fairtrade, since it questions the economic viability of these projects. For the mainstreaming of sustainable production in the cotton supply chain IDH does not make a distinction between Cotton Made in Africa (CMiA) or other similar sustainable cotton initiatives like the BCI (Interview Boselie and Mugiraneza, 2015). IDH does not interfere with the development of the standard and the criteria, it assumes that these are well thought through by the other partners. Livelihood and viability of the business are most important for the development of sustainable cotton for IDH.

Roy explains that organic is a difficult process and has less potential than BCI. The WWF sees possibilities for conversion of traditional farmers to organic, but only in some cases. Farmers that have converted to high-intensity farming would have great trouble during the transition to organic (Interview Roy, 2015). Transition to organic

should only be encouraged to farmers that have little or no access to chemical fertilizer, which would be a relatively easy process. In Roy's eyes organic and BCI are two separate projects which are not to be mixed (Interview Roy, 2015).

4.7 Future of BCI

As a final question the interviewees were asked about their view on the future of BCI. The experts Ferrigno and Stone had contrary views on this. Ferrigno fears that the expansion drift of the BCI might harm its credibility as quantity becomes more important than quality. He views the problem of unsustainable production in a larger context. The BCI and other roundtables have been pursuing their message as if we can continue growing, while I think we should understand this is not sustainable. We should be willing to pay more for less and to bring consumption down (Interview Ferrigno, 2014).

Stone is more positive and sees a role for the BCI to convert traditional to Better Cotton by engagement of national governing bodies. The example of the national government in Mozambique which adopted Better Cotton farming practices as part of its national is leading for Stone. At a certain point in future national governments have taken over the Better Cotton practices up to the point where BCI would become non-existent (Interview Stone, 2014).

Like Ferrigno also Ramakrishan of Arvind Limited had its doubts about the desire to increase in quantity. The goal the BCI to attain 30% of the global cotton production by 2020, is not too difficult in his eyes. However, the greatest risk is loss of quality of the BCI procedure if the organisation continues in this manner. According to Ramakrishan the introduction of any other sustainability programme with better funding would easily put an end to the BCI existence (Interview Ramakrishan, 2015).

Likewise Roger sees the target of reaching 30% of the world's cotton production, as achievable by 2020 and expects the BCI to grow and become the biggest global standard for sustainable cotton (Interview Roger, 2014). She sees opportunities for BCI in cooperating with Organic Cotton and Fairtrade projects, because there is room for all three organisations. BCI might be a stepping stone to Organic for farmers, for instance. She also underlines the need to maintain the quality of the label and to avoid accusations of greenwashing, especially the acceptance of GMO is a problem for many parties that look at sustainability processes, according to her.

On the contrary Brett of Olam International thinks the goal of 30% in 2020 is a way too ambitious plan. The only manner in which this is possible is by conversion of large developing countries, says Brett. In modern countries farmers already produce in a sustainable way, the greatest challenge is in converting smallholder farmers that produce on almost subsistence level (Interview Brett, 2014). These farmers really need to improve their production system, for their own economic benefit and for environmental impact. Brett notes that it will become increasingly important to look at the whole production system, also to maintain quality, because there is a lot to improve in other parts of the supply chain as well (Interview Brett, 2014).

Gaikwad of the KVK was asked to respond to this notion that there is a risk that quality is lost as the focus is too much on growing, he said to not agree. He also sees the expansion that the BCI strives after, but his experience tells that the compliance of

the farmers and the production process' quality is closely watched. His most recent experience was that one of the new BCI-projects that the KVK implemented was rejected for the BCI label. He does note however that the implementing partner they work with is WWF, a founding father of the BCI, so it is imaginable that other implementing partners are not as caring about the quality as the WWF. He foresees that the BCI practices will become a great success, even if they do not attain 30% or go beyond that, the knowledge has been spread into many regions. At least in the Jalna district the BCI-practices will spread, also without the funding of BCI training programmes, because farmers see and believe the benefits.

WWF sees a future in which organisation such as the KVK can take over implementation projects due to which WWF can focus itself on the strategic consultancy of BCI (Interview Roy, 2015). Also cooperation with local or national governments for implementation of the BCI programme are amongst the possibilities in the future, says Roy.

Other than the rest of the interviewees IDH sees the viability of the BCI-business as a challenge. Boselie is curious whether the BCI will develop its own revenue model in the future, in which it can make its own investments (Interview Boselie and Mugiraneza, 2015). This is true for all initiatives and standards that often depend on public funding, while public funders (such as Ford Foundation, with which IDH cooperates) start to reduce their spending on these sustainable initiatives. These organisations feel that the market should pay for the extra services of sustainable production. Since the BCI has no label on its cotton this extra payment needs to be discussed in B2B negotiations (Interview Boselie and Mugiraneza, 2015).

4.8 Conclusion interviews

Table 1 organises the analysis of the interviews according to the most important topics of the interviews. From the table it becomes clear that the different organisations joined the BCI for various reasons. For example for scaling of sustainable cotton, but also to support farmers or protect the company's economic future. It shows the great variety of interests and goals that the different members of the BCI have. However, their goals align in their pursuit to mainstream sustainable cotton. Interestingly the different interests of the BCI-partners that was spoken to all coincide in the urge to mainstream sustainable cotton.

Presumably concessions were done, some partners might have desired a greater focus on social conditions while others wished a greater focus on the economic viability of the standard and the organisation. It shows that these interests not necessarily conflict. On the contrary, quite possibly the deviating views on the right approach of the standard lead to engaged negotiations and discussions. The outcome of these negotiations might provide a balance between the 'best of both worlds' that secures the health and future of the organisation.

To conclude with regard to the sub-research questions; the aspirations and aims of the BCI-members for more sustainable cotton differ little. Most of the respondents

of the interviews see the initiative as a way to mainstream sustainable cotton. Some have aspirations to support organic cotton, next to or as a follow-up of BCI projects. The standards of the BCI are evaluated on a regular basis (three years) through an open consultation policy. Up till now this has happened just once, since the project started in 2009, was evaluated in 2012 and calls for the second revision of the standard are currently online (website BCI^b). During these evaluations all stakeholders of the BCI programme are invited to discuss the standard and the development of the project. Also the BCI council functions for the development of strategy and discussion in which a representative of each 'sector' in the supply chain is represented. Next to that the BCI monitors farmer behaviour and compliance through auditing of the input values. Farmers have to register input values of water and chemicals and have to report on labour conditions. On a random selection basis the implementing partner or the producer unit is asked for the values of an example farmer group.

Some of the interviewees note that an impact assessment is lacking and that the improvement of soil and water characteristics is based on assumptions. Others feel that these assessment of this kind is too early and note that the impact assessment should be done, but at a later stage. Others mention that it is too difficult to attribute changes to the BCI project.

Table 1 – Summary overview of interviews BCI-partner representatives and BCI-experts

| Organisation | Reason to join | Added-value to BCI | Ambition for sustainable cotton | Future of BCI | Future of organic |
|---------------------------|--|---|---|---|--|
| Solidaridad | Scaling of sustainable cotton. Shape the future of sustainable cotton. | Strategic partner, maintain credibility. Views from on the ground & in council. | No specific target target, see what is possible in mainstream sustainable cotton. For sector change | Target of 30% will be reached in 2020. Largest sustainable cotton. Keep eye on quality, risk of greenwashing. | Exist next to and as follow up of BCI. Both organisations and Fairtrade can learn from each other. |
| Arvind Limited | Support farmers in difficult period and contribute to sustainable environment | Support in balancing of demand and supply, in various phases of supply chain. | Mainstream BCI of which quality is checked on farm level & improves production | 30% is not difficult. Risk of quality decrease, too much focus on growth. Competition of other labels. | Cannot become mainstream, but BCI can be a stepping stone. Organic as the example. |
| Olam International | Solution to increase yields and improve position of farmers, Ol depends on farmers | Encourages brands & farmers to participate in BCI. Supports in traceability of the BC | Priority is labour conditions, second position improve environmental conditions | 30% is too ambitious. Need for focus on subsistence farmers in non-modern countries | ‘waste of time’ no willingness to pay premium. Farmers no capacity to improve practices. |
| WWF | High water footprint of cotton. Be part of a market transition | Implement. strategic partner. knowledge environment protection. | Mainstream BCI, separate organic projects. | BCI will become the norm, cooperation with national and local government. | Little potential, too slow and marginal. Possible for non-intensive farming. |
| IDH | Tool for market transformation. To scale and mainstream sustainable cotton | Co-funding, matchmaker between GO, NGO& private sect. Critical & learning partner | Mainstream cotton production as a viable, profitable business | Challenge to develop self-sustaining revenue model. 30% will be great, certified cotton will never become 100% | Organic is not scalable, thus not in interest of IDH. Neither is Fairtrade, due to premium. |
| KVK | Increase the reach of the KVK. Start more projects, support more farmers. | Large network and trust among farmers in the region. Increases farmer number. | Profitable sustainable cotton that supports farmer livelihood. | Very promising, BCI will spread. BC improves position farmer and cotton fibre. Quality of the BCI is not at risk. | - |

Reduced water use and impact on soil salinity: a case-study

In 2011 WWF and IKEA started a BCI-project in the Maharashtra region in the Jalna district directed from the WWF India department in Aurangabad and executed by the KVK in Kharpudi (Interview Gaikwad, Roy, 2015). From the KVK office in Kharpudi the internationally defined BCI standards were implemented on farm level. WWF India contracted the KVK as their implementation partner. Through farmer training into the BCI practices and support throughout the year, the KVK currently supports around 6000 farmers in 50 different villages in the Jalna district. The knowledge and expertise of this producer unit proved to be indispensable for the implementation of the BCI project. Its long term service for farmers in the Jalna district provided a broad, well connected network which served as the basis for the conversion of traditional farmers into BCI-farmers (Interview Gaikwad, 2015).

In this chapter first a short description of the project area is given. Afterwards the general findings of the research are presented along with a statistical analysis. In the conclusion the results of the case-study are discussed and put into a more general perspective.

4.9 Jalna district, Maharashtra, India

Jalna district is situated in the Maharashtra state, situated in the mid-west of the Indian subcontinent, which is pictured in Figure 5. The Jalna district stretches over an area of 7718 km² and has a population of 1,612,357 (Challa and Mandal, 2005). The district's population consists of 1,304,841 rural people and 307,516 people living in cities. It has a semi-arid climate and has an average rainfall of 650-750 mm, which is mainly received during the south-western monsoon during June, July and August.



There are three river systems present in the area: the Dudna, Godavari and the Purna, each with several tributaries. Of the irrigated agricultural land 65,389 ha is irrigated by canals and 36,641 ha is supported by wells. The average land holding of a farmer is 2.3 ha. The principal annual crops grown are cotton, sorghum, pearl millet and wheat (Challa and Mandal, 2005).

Figure 5 - Jalna district, Maharashtra state, India

The soils of the district are dominated by vertisols with high clay percentages. Around 62% of the area has fine textured soils and 32% has moderate fine textured soils. The

clayey textured soils have high retentive capacity with respect to soil moisture (Williams et al., 1983). This makes the area suitable for cotton production which requires fine textured soils with a high moisture retention capacity (Challa and Mandal, 2005). 64% of these soils are shallow to extremely shallow, but due to relatively little sloping sites the soil erosion hazard is low in 60% of the area (Challa and Mandal, 2005).

4.10 Soil salinity of BCI and non-BCI farms

Table 2 portrays the average characteristics of the plots where salinity research was conducted. The overall impression the values of the EC measurements give is of non-saline soil in the Jalna district with an average EC value of 0.45 mS/cm. The average EC of the irrigation water is 0.77 mS/cm, a value that still is not considered saline, but might cause issues in case of heavy irrigation on the clay soils that the Jalna district is rich in.

Strikingly the difference between the average salinity of BCI-farmers’ soil and the non-BCI farmers’ soil is nearly zero. BCI farming fields portray an average EC of 0.45 mS/cm, while this value is 0.46 mS/cm for non-BCI. There is a small difference between the irrigation water of both farming types, BCI 0.73 mS/cm and non-BCI 0.81 mS/cm. That the non-BCI soils still show an almost similar average salinity as the BCI soils might be due to the fact that non-BCI farmers have access to less water than BCI farmer. This would mean that the non-BCI farmer irrigates less, leading to a lower amount of saline water, and thus salts, applied to the soil. However as the non-BCI farmers do not register their water use it is not possible to draw any solid conclusions from this difference. That would however mean that the assumption that non-BCI farmers irrigate more excessively than BCI-farmers is not true, possibly even the other way around. However due to the standard deviation of 0.25 mS/cm (BCI) and 0.26 mS/cm (non-BCI), the very small difference in the mean of the EC of the BCI and the non-BCI farmer (0.08 mS/cm) becomes insignificant.

Table 2 - Plot characteristics

| Plot characteristic | BCI | Non-BCI | Total |
|-------------------------------------|------|---------|-------|
| Average plot area (acres) | 2.26 | 2.15 | 2.20 |
| Average EC irrigation water (mS/cm) | 0.73 | 0.81 | 0.77 |
| Average EC soil (mS/cm) | 0.45 | 0.46 | 0.45 |

When looking at the difference in distribution of the EC value of BCI versus non-BCI similarly there is little diversion. Figure 6 shows the distribution of the EC values of the soil of BCI-farmers. Compared to Figure 7 in which the soil EC values of non-BCI farmers is shown, there is little difference. The distribution of the soil values of the non-BCI farmers is little more evenly divided. However for both farmer types around 40% of the farmers have soil EC values between 0.2 and 0.35 and around 80% of both farmer types has a soil EC that lies below 0.6 mS/cm.

This means that the soils of the BCI and non-BCI farmers are very similar in terms of soil salinity. An explanation for this might be that the BCI-project has only recently started and that not enough time has passed for the new practice to change the soil salinity values. However, what is also possible is that the low water availability plays a role. Since the area is water-scarce during the whole season except in the monsoon period (June-September) farmers often explained that they irrigate 'all the water available' in their wells. Sadly there are only records available of the volume of water consumed by the BCI-farmers and thus no comparison or real conclusion can be drawn. However, from the stories of the farmers it seems they are all in the same position: both non-BCI and BCI farmers experience difficulties to 'survive' the year until the rainy season. The farmers investigated have both the means to acquire a drip irrigation system and suitable environment in terms of for instance slope and water sources. Water availability is however low, so although the farmers with drip irrigation systems are enabled to irrigate efficiently during a few times a year, the advantage they have over farmers without irrigation might be limited. Compared to farmers that have access to a similar amount of water, but irrigate without a drip system, the drip-farmers might benefit because they are better able to dose the water.

In addition to that an analysis of the average crop water requirement of cotton and the build-up of that amount in the Jalna district shows that irrigation contributes only to a small percentage of that number. The crop water requirement of cotton ranges between 550 and 950 mm per season (FAO, 1977). This is dependent on various factors such as climate, soil type, average wind speed and many other characteristics of an area. The average annual rainfall in the Jalna district is 650 to 750 mm (Challa and Mandal, 2005). Assuming a relatively dry year with 650 mm rainfall and the highest estimated crop water requirement for cotton of 950 mm per season, makes that the irrigation practices only contribute a little more than 30%. This also shows from the situation in Jalna, in which only 10% of all cotton production is irrigated, yields are most probably lower, but for farmers it is still profitable to grow cotton.

Figure 6 - EC distribution BCI

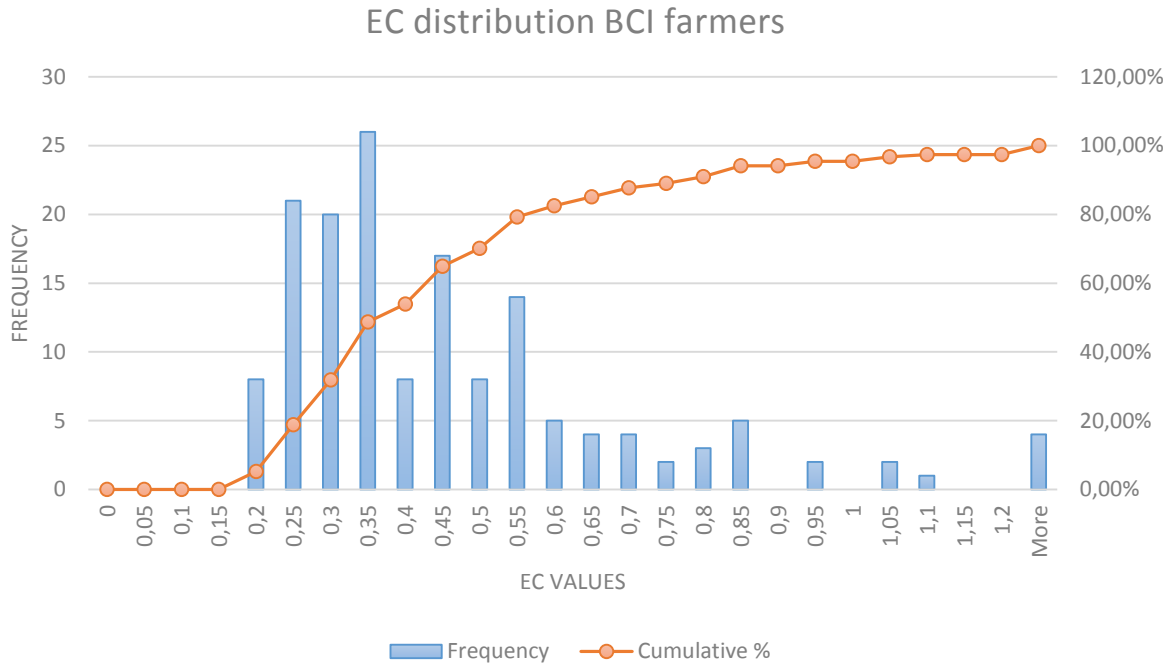
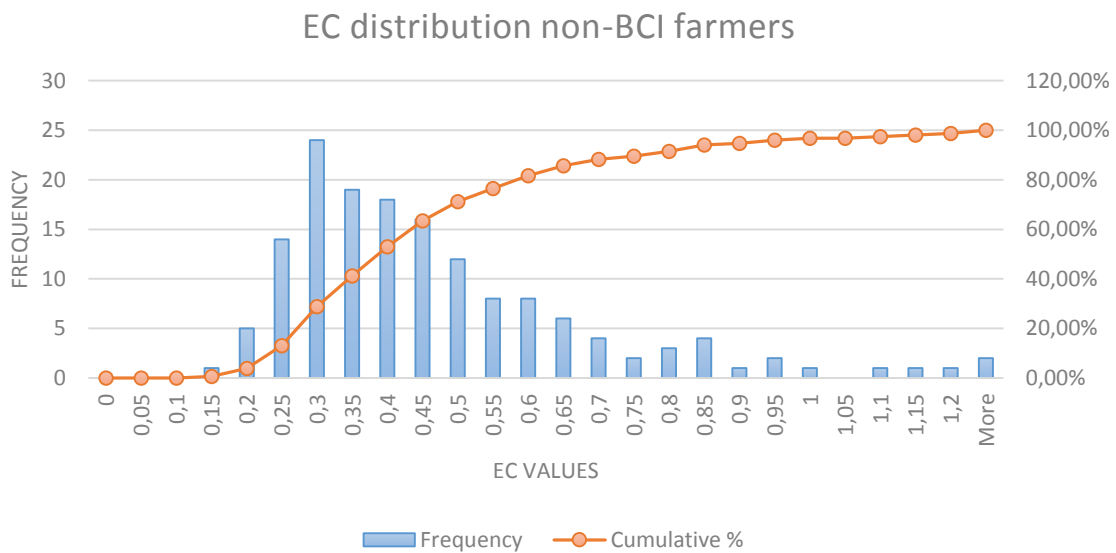


Figure 7 - EC distribution non-BCI

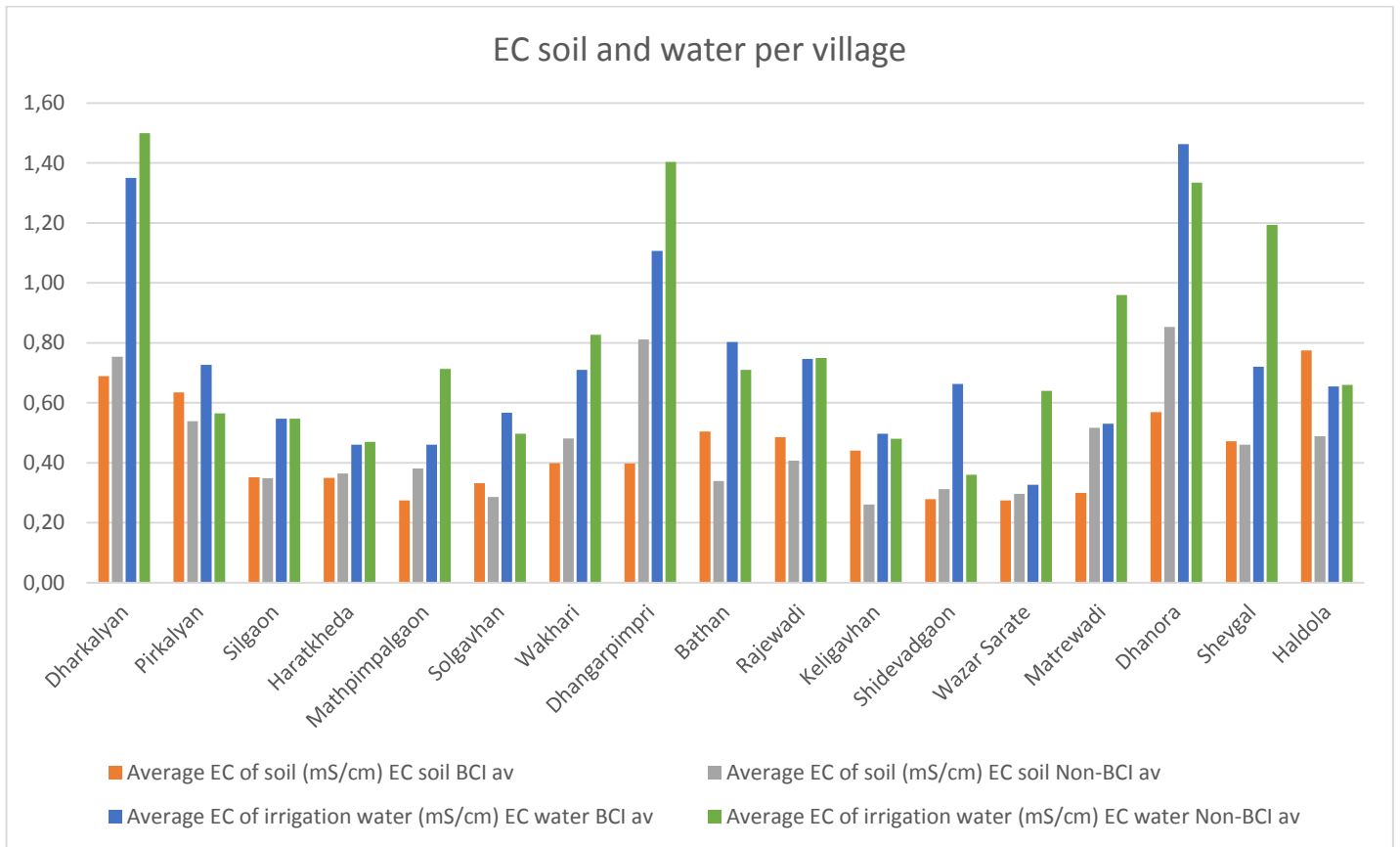


4.11 Analysis per village

If the EC-values are studied per village additional insights are obtained. This is due to the fact that often the water available in the village has similar salinity levels and because the soils in one village show comparable characteristics. Some villages show very low salinity levels and others 'fairly high'. In Figure 8 the EC of the soil and the irrigation water is given per village, in which a distinction is made between BCI and non-BCI farmers. Some of the villages show high levels of irrigation water EC, which often also corresponds with higher soil EC values. The correlation coefficient of the relation between the soil EC and irrigation water EC is strong, 0,83 (Dancey and Reidy, 2004).

From Figure 8 it becomes clear that some villages, such as Dharkalyan, Dhangarpimpri, Dhanora and possibly also Shevgal are at greater risk due to relatively high salinity values of irrigation water. The risk increases as one uses saline irrigation water, because when the water is evapotranspired even more salts are left in the soil, so the process evolves much faster (Hanson et al., 2006). The EC of the irrigation water however, does not explain everything. For instance, in Pirkalyan the irrigation water EC is almost half of the EC value of irrigation water in Dharkalyan. Instead the soil EC levels of Pirkalyan and Dharkalyan only differ some 0.2 mS/cm. An explanation for this might be large amounts of calcium carbonate in the soil in Pirkalyan which influences soil EC. Some white little rocks were found on some of the fields depicted by the farmers and KVK-staff as calcium carbonate.

Figure 8 - EC values for BCI and non-BCI of soil and irrigation water per village



4.12 Farmer questionnaires

To be able to make sense of the soil salinity measurements the farmers were also asked a few questions on their land and water management. Below the results of that investigation are presented. The format of the farmer questionnaire can be found in Annex 1 – Farmer questionnaire.

4.12.1 Land management

In Table 3 the responses of the farmers to the questions on land management are organised. 10% of the BCI farmers practice intercropping, not far apart from the non-BCI farmers of which 6% engages in intercropping. Crops used for intercropping on cotton fields are sorghum, maize and red gram.

72% of the BCI-farmers planted trap crops, which shows a large difference with non-BCI farmers, of which only 30% plants trap crops. The farmers planting the crops to 'trap' pests use red gram, marigold and maize. This high percentage of BCI farmers represents also their knowledge on pests and its natural enemies. Some of the BCI-farmers that had not planted trap crops explained that due to late rain and expected low yield, they decided to not invest money in this form of pest prevention.

Both BCI and non-BCI are not very active in mulching practices: of both groups 12% of the farmers apply mulching. Mulching practices present a potential remedy to soil salinity as well as a contribution to general soil health and consist of burying plant residues or other organic material below the soil surface. This would also reduce CO₂ impact of the cotton production and improve its sustainability consideration.

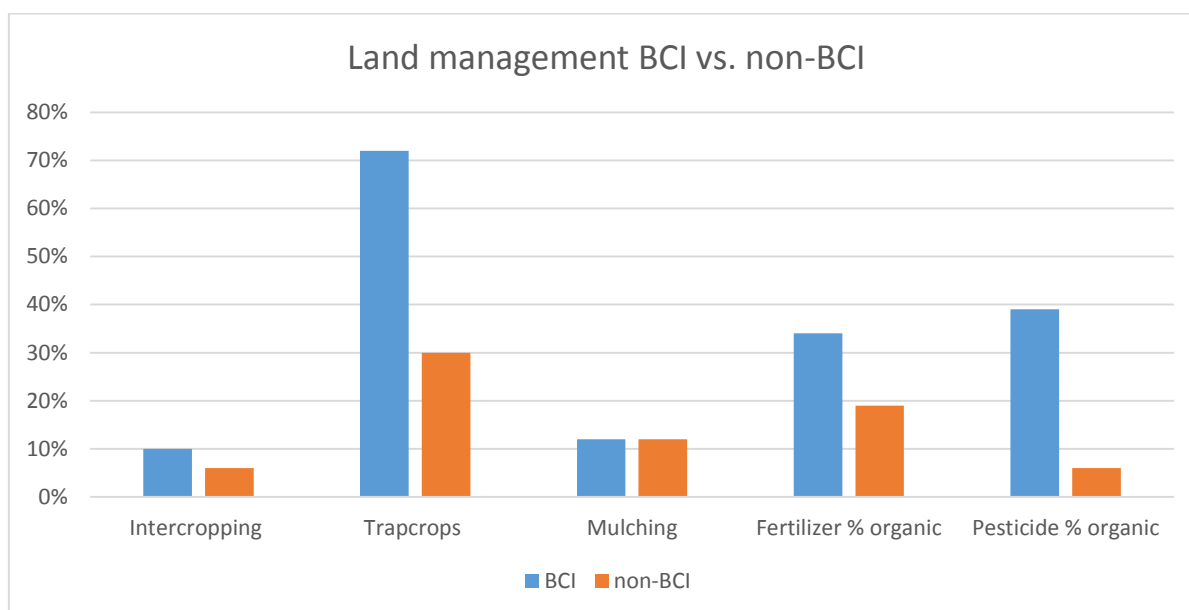
Table 3 - Land Management practices by BCI and non-BCI farmers

| Practice | # BCI | % BCI | # Non-BCI | % Non-BCI |
|-------------------------------------|-------|-------|-----------|-----------|
| Intercropping (# farmers) | 5 | 10% | 3 | 6% |
| Trap crops (# farmers) | 36 | 72% | 15 | 30% |
| Tillage only ox (# farmers) | 0 | 0% | 11 | 22% |
| Mulching (# farmers) | 6 | 12% | 6 | 12% |
| Average % fertilizer organic | | 34% | | 19% |
| Average % pesticide organic | | 39% | | 6% |

Considering the use of chemicals BCI farmers do significantly better than non-BCI farmers. Especially considering pesticide use, on average the pesticides used by a BCI-farmer are 39% organic, to 6% of non-BCI farmers. On average of all the fertilizer that a BCI-farmer applies 34% is organic manure.

These results become more apparent in the column chart of Figure 9. Here the percentage of the BCI farmer and the percentage of non-BCI farmers is displayed for intercropping, use of trap crops, mulching and the percentage of the pesticide and fertilizer used which is organic.

Figure 9 - Land management



4.12.2 Water management

The questions farmers were asked about a number of water management practices were analysed in excel and are recorded in Table 4 and depicted in Figure 10. The largest differences between BCI and non-BCI farmers in terms of water management are seen in problems with the drip irrigation system and the percentage of farmers that operates with as well drip as flooding. In addition to that some can be said about the average irrigation water applied of a group of BCI-farmers.

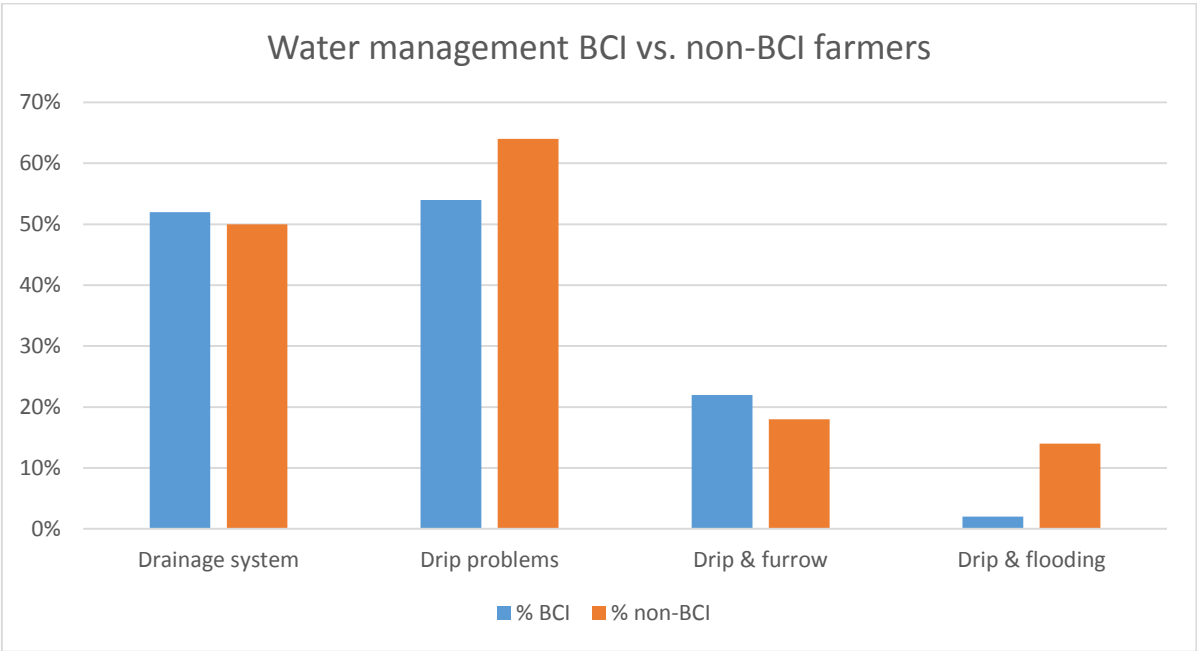
Table 4 - Water management practices by BCI and non-BCI farmers

| Practice | # BCI | % BCI | # non-BCI | % non-BCI | # Total | % Total |
|-----------------|-------|-------|-----------|-----------|---------|---------|
| Drainage system | 26 | 52% | 25 | 50% | 51.52 | 52% |
| Drip problems | 27 | 54% | 32 | 64% | 59.54 | 60% |
| Drip & furrow | 11 | 22% | 9 | 18% | 20.22 | 20% |
| Drip & flooding | 1 | 2% | 7 | 14% | 8.02 | 8% |

BCI and non-BCI farmers experience problems with the drip system, mostly in the form of blockage of the drip holes and also of squirrels and rats that bite the tube of the well. However, 10% more of the non-BCI farmers reported problems with the drip. The farmers explained mostly to solve blockage problems by treating the tubes with acid and some mentioned to remove the end caps to clean the tubes by running water under high pressure through them. This difference between BCI and non-BCI might be attributed to the differences between quality of the drip. Although the farmers were not questioned about this it is possible that non-BCI more often chose the cheaper non-certified drip system while BCI farmers decided to invest in a certified drip system that caused them less issues.

The other apparent difference between BCI and non-BCI farmers is that the latter chose more often for supplementary flood irrigation. While BCI-farmers would prefer to irrigate extra by using alternate furrow irrigation. Apart from the benefits of alternate furrow irrigation for water uptake by the plant and plant stem protection by the furrow ridge, it also has a preference above flood irrigation for soil salinity prevention. Flood irrigation demands more water to reach the crops' roots and therefore is left on the soil longer before it drains, causing a higher rate of evaporation and thus more accumulation of salts.

Figure 10 - Water management



The data of the water use of non-BCI farmers is not tracked, so a comparison on that element is not possible. The BCI managed to go around this issue by training the farmer to record water use from day one (when new management practices were not applied yet) onwards, so that differences in water use can be tracked. When looking at the data of a group of 30 BCI-farmers (that together formed the sample group for monitoring by/reporting to the BCI), what is apparent is that their average irrigation volume is 132 m³/ha, while the average irrigation requirement of cotton in for instance Australia is 5.4 mega litres/ha in 2011 (ABS, 2012). Australia's cotton industry is claimed to be the most water-efficient globally (website Cotton Australia). The arid climate of the region leaves the farmers with little possibilities to irrigate. The climate and the low average irrigation volume of the group of BCI-farmers suspects that neither BCI nor non-BCI farmers have the luxury to reduce their water use, as it already is very low.

4.12.3 Motivation BCI/ Non-BCI

During the interviews the farmers were also asked about their reasons to join or not in the BCI programme. Below an analysis of the responses is given.

Analysis of BCI farmers

When the farmers were asked about their reasons to participate in the BCI three main motivations came forward; either the farmer was interested in learning new techniques, they were interested in the promise of higher yield and income or they explained to have a long history at KVK and to highly value and trust their advice.

As a response to this question 49% of the BCI-farmers are considered to be an innovative farmer. A term applied to farmers that explain to be interested in new techniques as (one of) the reason(s) to take part in the BCI project. These farmers explained that they were interested in IPM, drip irrigation and other techniques to improve their farmer practices and that they assumed they would learn this during BCI trainings.

Interestingly 71% of the farmers explained having a history in participation at a KVK training and to appreciate the organization for its expertise. The farmers trust the KVK and some even follow all KVK-instructions, which has also led them to the decision to join the BCI. It comes forward that the reach and network of the KVK is indispensable to any success of implementation of a project such as the BCI.

Also, 33% of the BCI-farmers explained to have joined following the promises on yield and income increase. Some of them reported also affiliation with KVK for many years and other's explained to assume to increase yield by applying new techniques.

Analysis of non-BCI farmers

A similar question was asked to the non-BCI farmers, namely inquiring their reasons not to join the BCI. This sometimes led to confusing moments for the farmer as they had never heard about BCI or even KVK. However, after an explanation by one of the KVK staff present at the farm visit they explained their reasons. They lived far from the village and replied to be too busy with farming to take part in any training or to even travel to the village. Noteworthy is that one farmer perfectly knew the BCI-programme, but explained that it regarded the practices as not cost-effective and believed more in his own technique, which was based on – as he explained – micro-nutrient management.

57% explained to be too busy or to live too far from the village to follow the trainings. Where 43% explained to not know BCI and its benefits at all or to not have enough information to decide on joining. To be able to say something about the importance of KVK also these farmers were asked about their relation with KVK. To this question 36% explained not to know KVK or to have only heard about its existence but to have never followed a training. A remarkable lower amount of farmers than of the BCI-farmers, which designates the importance of the KVK for the successful implementation of the Better Cotton programme.

To the question whether the farmers were thinking of joining or whether they would be interested to join in the future almost all farmers responded positively. An interesting response, because what would have made all the farmers interested to join now, after all those years? A few explanations could be thought of: either they were impressed and reminded about the BCI by our visit, they might have responded with a socially

'favourable' answer as they understood our origin and they might have experienced extremely low yields this year which moved them to seek for alternatives.

4.13 Conclusion

In the Jalna district of Maharashtra, India, five years ago a BCI-programme was started under cooperation of WWF India, IKEA and BCI. The producer unit was the KVK who executed all training and monitoring of the farmer's practices. In a response to the research question on differences in soil salinity values of BCI or non-BCI farmers one can be brief. There is no significant difference between the soil EC of both farm types. BCI farmers have a soil salinity of 0.45 mS/cm and non-BCI farmers have a soil salinity of 0.46 mS/cm.

The difficulty with drawing conclusions from this result is that the non-BCI farmers have no record of their irrigation practices, so conclusions remain assumptions. From interviews with farmers it became clear however that the area is dry and that farmers irrigate little, due to the scarcity of water. Also, the closer look at the water use data of the BCI-farmers shows a low average volume of irrigation applied. This would mean that although farmers would want to irrigate more they are not in the position to do so. Possibly this also means that both BCI as non-BCI have similar amounts of water available and irrigate similar amounts, leading to the almost equal values of soil salinity.

That would mean that the farmers in the region are unable to comply with the BCI-criteria on the matter of water use reduction, as they had very little water to begin with. Gaikwad explained that the KVK works with farmers on a reduction of water use until an optimum is attained (Interview Gaikwad, 2015). However, this case shows that the one-size-fits-all model that the BCI implements in numerous regions all over the world is far from perfect. It has no definition of what is an optimum water use and then again this value would also depend on the region, crop, time of the year and possibly on other factors. Also the fact that the irrigation practices contribute, in the driest years and least favourable circumstances for growth, only 30% to the total crop water requirement, shows the relatively inadequacy of the criteria. Little can be improved in water efficiency in this region and it is even questionable if demanding farmers to reduce water use has a positive effect rather than negatively affecting yields.

Another factor that might be of importance is the relatively short period during which the BCI programme has been running, only since 2009. Possibly the time is too short to find differences in soil salinity between the two farmer type. Certainly taken into account that the area is dry and farmers have little choice in deviating from the amounts of water that they irrigate.

With regards to the land and water management the BCI farmer stands out when it comes to fertilizer and pesticide use in the Jalna region. Certainly compared to the water use reductions, which might also be related to the limited water use of the farmers in the region in general. BCI-farmers show to have greater knowledge in IPM and use more organic products. Also the use of trap crops distinguishes the BCI-farmer from the other farmers. The use of trap crops is an element of the BCI trainings

provided by the KVK to reduce pesticide use. In addition to that do BCI-farmers spray with more protection than non-BCI farmers. All practices which are clearly a result of the BCI-farmer training. Little differences can be found in soil conservation practices, a little amount of BCI (and non-BCI) farmers engage in mulching and intercropping activities. Apart from the benefits these activities bring to soil health also the carbon footprint of the cotton production of this BCI project can be reduced by encouraging farmers to bury organic material (rather than to burn it).

The importance of the network, the experience and the image of the KVK in the Jalna district became apparent throughout the whole research. The organization is highly valued for its farmer advice and trusted in its recommendations by a large part of the farmers. This led to easy access into the villages and to the farmers, but also showed that a project like the BCI build heavily on the capacities of a producer unit like the KVK for the implementation of its practices.

5. Discussion

In this chapter the importance as well as the limitations of this research are discussed. Limitations of the research are outlined with suggestions for future research. The conclusions and recommendations are presented in chapter 7.

5.1 Case study India

Following on from various articles on impact assessment and evaluation this research underlines the importance of measuring the effects of a programme to make any sustainability claims. BCI does not require participating farmers to provide information on soil and water conditions and has not yet set up a plan to understand the impact of its programme. Mugiraneza explained that impact reviews are often done after 5 years of implementation (Interview Boselie and Mugiraneza). The first BCI projects started in 2009 and up till now, 2015, there is no sign of such intentions. A number of the interviewees informed that they had similar doubts about the lack of impact assessment.

Impact assessment is not only relevant to rightfully make statements on more sustainable cotton production, but is also necessary to determine whether the standards and the programme implemented are not leading to unwanted side effects. The case study in India into the effects of reduced water use on soil salinity aimed to provide a first impact review and attempted to highlight the complexity of land and water systems. Because a change in, for instance volume of irrigation, might not only have positive results in terms of water availability, but can also affect soil quality or water availability in other areas.

The initial hypothesis that the salinity levels of soils of BCI farmers could be higher than the non-BCI soil values due to reduced flushing/irrigation was not confirmed. This had to do with a not rightfully made assumption that confused the outcomes of the research. It was assumed that the soils had the potential to be flushed through leaching, in case of risky high levels of salinity. However, due to the high level of clay in the soils investigated in the Jalna district adding more water to the soil will not lead to a flush of the salts, but could possibly lead to much higher levels of salinity (Hanson et al., 2006). Clay soils have high moisture uptake capacity and therefore do not allow flushing, but lead to retaining of the salts (Hanson et al., 2006).

Another limiting factor to the leaching of salts is the low water availability in the region. The region is supplied with water during the monsoon period in the months June, July and August; after that farmers depend on wells and rivers until they run dry. This might explain the same average between BCI and non-BCI farmers: all farmers have access to similar amounts of water and therefore the non-BCI farmers would not have the possibility to irrigate excessively, there is simply not more water. The research results showed that soil salinity in the Jalna region has not reached dramatic levels. However, the drought period in the area and water scarcity bring EC-levels of irrigation water to saline levels. Excessive or prolonged irrigation practices with this water impose risk of salinization of the soil, especially because once salinized flushing of the

soil is not a suitable remediation strategy due to the specific characteristics of clay soils (Hanson et al., 2006). Thus, to maintain soil salinity values as they are in the Jalna district monitoring of the EC values is necessary. The same conclusion was drawn from a study in the north-west of India, in the region Haryana (Datta and De Jong, 2002). Here accumulation of salt in the groundwater and irrigation with that polluted (saline) groundwater caused negative impacts on crop yields (Datta and De Jong, 2002). This also showed from a research done in the Andhra Pradesh region in India. Here the EC values of both the irrigation water and soils were studied to understand the status of irrigation water on soil salinization (Devi et al., 2012).

The fields studied were often cultivated following an intercropping system. Cotton is rotated with crops such as maize, sorghum and red gram. Due to the topic of this research, investigating the impact of the BCI, this research focused on the impact salinity will have on the cotton yield. However, the cotton plant has a relatively high threshold for soil salinity and can withstand an EC of 7.0 mS/cm. This threshold value signals the maximum salinity level at which the yield is not negatively affected (Hanson et al., 2006). The effects of soil salinity are detected much earlier for vegetables and fruit crops that have lower threshold EC values than cotton. Orange has an EC-threshold value of 1.3, and grapes of 1.5, but also sugarcane which has a threshold of 1.7 mS/cm is more sensitive (Hanson et al., 2006). This means that results of this research might seem of no immediate importance for cotton production, but that in fact these values pose a much more direct threat to other crops grown in the region. As the climate, soils and water availability is similar to all farmers in the region the results may be extrapolated to understand the situation for other crops. For these crops a more cautious approach is required and water conservation practices are more urgent. Although this does not regard the BCI practices in particular it does reflect the situation in the region and regarding soil salinity risks in other dry areas.

Another issue for this research is the fact that non-BCI farmers do not keep track of their irrigation volumes. Therefore no solid analysis could be made on whether reducing water use leads to differences in soil salinity. Although the research shows that BCI and non-BCI farmers have the same soil salinity values, it does not say anything about their irrigation practices. Assumed is that all farmers have little access to water in this dry area, but it cannot be stated with certainty. The BCI farmers are actively monitored and are required to record their water use practices and volumes ever since the start of their participation in the BCI programme. In this way the BCI is enabled to monitor reductions. Since the irrigation values at the beginning are registered the BCI is able to see any further reductions the farmers make in the following periods. Possibly a reason for a lack of studies of the impact of water use on soil salinity comparing BCI (or other certified farmers) with non-certified farmers is the lack of information on farm management of the non-certified farmers. While one would expect a good monitoring system to have incorporated a control group. By studying the soils of BCI farmers over a longer period of time this issue could be (partly) overcome. Because in that case the differences in soil values could be studied from the start of participation in the BCI-programme through the course of a few years. But since the BCI has not monitored soil values since the beginning of the project

implementation, meaningful results of impact assessments can be presented at earliest in five years from now.

Due to time and budget constraints only soils in close proximity of Kharpudi were assessed. In conversations with the KVK staff a reference was made to the higher salinity levels present in the southern part of the Jalna district. Due to these reasons these more saline areas in the Jalna district were not investigated. A pity, because this might have provided more clue on the differences between BCI and non-BCI farmers. A suggestion to the KVK and cooperating organisations is to research the more salinity-prone areas as well in the near future. This is for instance also the case in other regions in India, such as Haryana, Gujarat and Andhra Pradesh (Datta et al., 2002; Brahmabhatt et al., 2000; Devi et al., 2012).

5.2 The BCI and evaluation

That the absence of impact studies is a vital issue in the world of certification systems in general is shown by various other studies. The BCI is, for instance, not the only roundtable certification scheme to have little reporting on impact of its activities. Saswattecha et al. (2015) report on the little information available on the impact of RSPO palm oil production in Thailand. That study also did case study into the impact of an RSPO project in Thailand. With a similar approach it was argued that currently studies of the RSPO impact put far too little emphasis on the importance of biodiversity (Turner et al., 2008).

In the conclusion and recommendations further emphasis is put on the difficulty of extrapolating cotton production issues in completely different countries, climates, cultures and agronomic characteristics. One of the recommendations is to develop a set of criteria that is regionally specific. It can be argued that it is far too resource consuming to develop a regionally specific set of criteria. However that it is considered possible and useful shows from the interview with Guillaume de la Ruée (2015). De la Ruée explains that UTZ Certified employs a list of basic criteria that apply to all its programs and that there are separate lists to complement certain programmes (De la Ruée, 2015).

6. Conclusions & Recommendations

If an organisation like the BCI wishes to make claims about more sustainable production of cotton through its certification scheme, a careful assessment of the match between the BCI's standard aims and its actual impact is needed. An investigation of the views of several BCI partners showed that the aims of the individual partners differ, although the majority sees potential in the initiative to mainstream sustainable cotton. For some partners environmental impact is most important, some participate mainly to ensure future profits and others mostly value the social sustainability of the initiative. All organisations support the standard and its criteria, even if they disagree with some elements, because they believe the programme is in their interest.

In this chapter first an answer is given to the main research question. Further the learnings from the case study are presented. Finally two recommendations are given regarding the future of the BCI and its projects.

So: what is the desired impact of the Better Cotton standards and how does this match with its impact on soil quality, in terms of salinity, of the Better Cotton fields around the city of Jalna, Maharashtra, India?

This research showed it to be difficult to find a match between the desired impact and the actual impact on the Better Cotton fields in India. The research into soil salinity of BCI and non-BCI farmers reflected no difference in values of soil salinity and could therefore not conclude any harmful effect of reduced water use on soil salinity. Due to the unavailability of data on water use of the non-BCI farmers and the limited possibilities in water use reduction in the region studied, little can be said about the impact of the BCI requirement to reduce water use.

Some of the researched sites showed higher values of soil salinity and used saline irrigation water, and will therefore be at risk in the near future. The average EC of the 100 farmers' fields researched was 0.45 mS/cm. No alarming values of soil salinity were found in the Jalna district of Maharashtra, India. This does however not mean that soil salinity will not become a problem in the future in the region or that the risk of soil salinity is not present in other regions where BCI poses restrictions on water use.

6.1 Other case study learnings

The case study in India showed little room to conclude on the impact of the BCI-criteria of reduced water use in irrigation on the development of soil salinity. It is nevertheless, worthy to note findings on other BCI-criteria and the implementation of the BCI-programme. From interviews with farmers it became clear that the area is dry and that farmers irrigate little, due to the scarcity of water. This would mean that although farmers would want to irrigate more they are not in the position to do so. Possibly this also means that BCI and non-BCI farmers have similar amounts of water available and irrigate similar amounts, leading to the almost equal values of soil salinity.

With regards to land and water management the BCI farmers stand out when it comes to levels of fertilizer and pesticide use in area studied. BCI-farmers demonstrated greater knowledge of IPM and use more organic products. In addition CI-farmers spray with more protection than non-BCI farmers. These are all clearly a result of the BCI-farmer training. Little differences can be found in uptake of soil conservation practices; only few BCI (and non-BCI) farmers engage in mulching and intercropping activities. Apart from the benefits these activities bring to soil health also the carbon footprint of the cotton production of this BCI project can be reduced by encouraging farmers to bury organic material (rather than to burn it).

Although this research did not show negative side effects of reduced water use in cotton production, the theoretical basis holds and possibly BCI-practices negatively impact soils in other regions. Without impact studies the BCI does not know whether it reaches the goals it has set. Even if the practices do not lead to harmful side-effects, the BCI is not in the position to reveal to stakeholders and critics the positive impact that the project has on soil quality, with regards to soil salinity, but also other parameters. Without the support of substantial impact research the sustainability claims of the BCI remain assumptions and a solid response to doubts and criticism is yet to be formulated.

6.2 Recommendations BCI

From the research two main conclusions can be drawn for the BCI. In addition to that two recommendations are given for future research.

To not be associated with 'greenwashing', the BCI should carefully evaluate the quality of its standard. A regionally adapted set of criteria would be more effective in making a sustainable impact by improving the farmer practices on themes in which there is a lot to gain. And secondly, the quality of a standard is also determined by the proof available for its quality. In the case of the project in Jalna, but this applies to all BCI-projects, the absence of impact monitoring makes it difficult to determine what kind of impact the program really has.

6.2.1 Regional differences: development of an adaptable set of criteria

The necessity of impact assessment becomes even more evident when bringing in the issue of regional differences. The differences in environmental, social, political and geographical circumstances of the regions where the BCI has implemented its programme demand a set of criteria that is site-specific. In areas such as the Jalna district in Maharashtra there is little room for reductions in water use due to the low water availability. The impact of reductions in water use on soil salinity might be low, due to the vertisols in the region; this might however be the exact opposite in areas with soils with little clay content. The large reductions in fertilizer and pesticide applications of BCI compared to non-BCI farmers might however have a positive impact on soil conditions. This is left to assumptions since no soil tests have been executed.

Therefore the BCI is recommended to start developing an adaptable set of criteria that can accommodate regional differences. In cooperation with local organisations and environmental, agronomic, cultural and economic experts regionally suitable criteria should be developed. That this approach is feasible is supported by the existence of a regional specific set of criteria employed by UTZ Certified (De la Ruée, 2015).

6.2.2 Absence of impact monitoring: necessity for sustainability claims

Monitoring of the farmer inputs is a suitable manner to assure compliance of the participating farmers. The analyses of the chemical and water inputs of the farmer will provide facts on their reduced usage and can be reported as proof for sustainable impact of the BCI-programme. But only impact studies of soil and water conditions can provide the support for true claims on that matter and the long term impact of the BCI standard. Even though attribution of differences in soil and water characteristics to the BCI programme is difficult, it would be valuable to see whether differences occur in soil health and water quality in the various regions that BCI is active in.

Up till now no impact assessment of the soil and water conditions has been executed and demanded by the BCI, although plans to do so are being developed by some of the implementing partners. Therefore, currently the risk of soil salinity in its projects is not monitored by the BCI. Soil salinity is a real problem in various regions around the world and without monitoring the impact on soil conditions of altered water use practices, BCI might be doing more harm than good in those regions. This unawareness of its impact and effect also influences the BCI statements about sustainability. Even if the BCI positively influences soil conditions, or does not pose any salinity risks to them, their current evaluation method does not provide any proof on that matter.

Therefore this research recommends the BCI to start monitoring soil and water conditions to be able to define the impact of the BCI projects. Defining impact on all participating cotton farms is outside the scope of such an impact assessment. Rather a number of farms in various regions should be monitored on soil and water metrics. Then in some five or ten years from now the BCI sustainability claims can be supported with actual proof.

6.3 Recommendations further research

Further research within this topic is recommended on three research themes. One which is also interesting for the BCI and other MSIs.

Firstly, it is recommended to do more impact assessment over a longer period of time. What became clear of a literature research is that little research is done into the impact of MSIs in terms of environmental sustainability. It would be interesting is to see the impact of the BCI or another MSI over a longer period of time on several soil and water conditions. This would also regard impact on other elements such as biodiversity, CO₂ emission decrease and others.

Secondly, it would be relevant to make a comparison between the salinization levels in the Northern part of India, in which allegedly more problems with salinization are present, and the area of Maharashtra. What are the levels of salinity in the Northern

cotton fields in regions like Gujarat? And what kind of remediation techniques would suit that region?

Finally, it would be interesting, for scientific reasons, but also benefitting the BCI and other MSIs, to research possible business models that sustain both quality and quantity of the programme. Some of the interviewees noted the possible issues that may arise in terms of quality of the certification, while other underlined the importance of a development towards economic viability of a standard. How can these standards become economically independent from funds and donors and at the same time maintain its qualitative and quantitative impact?

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Interviews

Interview Amanda Stone – Amsterdam, 20th of November 2014
Brownstone Consultancy

Interview Isabelle Roger – Utrecht, 3rd of December 2014
Solidaridad

Interview Simon Ferrigno – Skype, 8th of December 2014
Consultant and cotton expert

Interview Chris Brett – Skype, 17th of December 2014
Olam International

Interview Mahesh Ramakrishan – Skype, 18th of December 2014
Arvind Limited

Interview Guillaume de la Ruée – Amsterdam, 8th of January 2015
UTZ Certified

Interview Sumit Roy – Kharpudi, India, 15th of January 2015
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KVK Jalna

Interview Brigitte Mugiraneza and Dave Boselie – Utrecht, 26th of March 2015
IDH - The Sustainable Trade Initiative

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Annexes

Annex 1 – Farmer questionnaire

| | | | | | | | |
|-------------------|--|-------------------------------------|-----------------------------------|-------------------------|------------------------------------|-------------------------|---------------------------|
| Farmer id | | WWF -KVK - MH - 11 - PU - LG | | | Village: | | |
| Farmername | | | | | | | |
| Date | / /2015 | | | | BCI NON BCI | | |
| Sample | Sample type | Sample Location | Weight soil + water(gr) | EC value (mS/cm) | Weight soil + water(gr) | EC value (mS/cm) | Area plot in acres |
| Sample 1 | Well | | | | | | |
| Sample 2 | | | | | | | |
| Sample 3 | | | | | | | |
| Sample 4 | | | | | | | |
| Sample 5 | | | | | | | |
| Question | | | Answer (J/N/other comment) | | | | |
| 1 | Intercropping(fertilising, pestmanagement, extra income) | | J | N | | | |
| 2 | Mulching | | J | N | | | |
| 3 | Tillage | | J | N | | | |
| 4 | Drainage system | | J | N | | | |
| 5 | Crusting | | J | N | | | |
| 6 | Drip problems | | J | N | | | |
| 7 | Hiring men-women | | J | N | Salary & workinghours & activities | | |
| | F=fertilising, Spraying - protection | | | | Men | | |
| | P=ploughing, W=weeding, S=sowing, Plucking | | | | Women | | |
| 8 | Why BCI/NOT BCI | | | | | | |
| 9 | Soil level(feet) | | | | | | |
| 10 | Watermngt(drip, furrow, flooding) | | J | N | | | |
| 11 | Fertiliser usage(organic/chemical) | | J | N | | | |
| 12 | Pesticids mngt (which pesticides, natural enemies) | | J | N | | | |
| Any remarks: | | | | | | | |

Annex 2 – Interview questions Solidaridad

Solidaridad & personal experience

1. Before you started your position at Solidaridad, you worked at the BCI board in Geneva. What were your experiences and main activities as a traceability advisor and a governance and operations coordinator at the BCI head office?
2. How do those experiences in Geneva differ from your current position as senior programme manager Cotton at a BCI-partner, at Solidaridad? What are your experiences so far?
3. What do you think is the added value for Solidaridad to join and contribute to the BCI? Do you think this differs among the various member organisations?
4. What do you think is the added value that Solidaridad brings to the BCI?

Ambition, criteria and goals

5. How did the goals and BCI standards develop to be as they are now? Are they still under development? What changed in the past years?
6. What do you think of the goals, aims and criteria that the BCI set for Better Cotton? How do they suit the various differing regional situations around the globe?
7. What ambitions in terms of more sustainable cotton does Solidaridad have?
8. How does Solidaridad reflect on the BCI standards and the criteria? Does this match with the aims of Solidaridad? Are there differing ideas of the other BCI partners on the standard?

Evaluation

9. How does Solidaridad evaluate its programmes and how are possible adjustments made? Do the set goals of Solidaridad match with the actual impact?
10. In general the BCI asks farmers to report each year on the improvements that they make. Who gathers these progress reports and how are they processed?
11. Does the evaluation of the BCI practices lead to a review of the BCI standards and criteria?
12. How do you see the future of the BCI?

Thesis research

13. Solidaridad is also present in India with various farmer training programmes, what programmes does it currently implement in India?
14. Are you familiar with the practices of IKEA & WWF in India? If yes, what do you think and know about them and what do you think of my initiative to evaluate the practices on environmental impact in the Maharashtra region?
15. My aim is to talk to as many people as possible that either have knowledge about or are active within (an organisation of) the BCI. Do you know people that might be interesting for me to talk to – e.g. BCI members, members of the BCI board - and could you get me into contact with them?

Annex 3 – USDA Soil salinity testing: EC_{1:1} method

1. Soil Sampling: Soil EC level is highly variable, depending on past management, field location and time of the year. Examples include, fertilizer placement in rows vs. between rows, soil texture, organic matter content, and applications of manure or fertilizer. Using a soil probe gather at least 10 small samples randomly from an area that represents soil type and management history to a depth of 8 inches and place in a small plastic bucket. Do not include large stones and residue in the sample. Repeat this step for each sampling area.
2. Tamp down one sampling scoop (29.5 mL) of mixed soil by striking scoop carefully on a hard level surface and place soil in plastic mixing vial. Add one scoop (29.5 mL) of distilled water to the same vial. The vial will contain a 1:1 ratio of soil to water, on a volume basis.
3. Tightly cap vial and shake 25 times.
4. Remove cap, turn on EC probe, and insert into soil-water mixture in vial, keeping the probe tip well in the center area of the soil suspension. Take reading while soil particles are still suspended in solution. To keep soil particles from settling, stir gently with EC probe. Do not immerse probe above maximum immersion level.
5. After reading stabilizes for about 10 seconds, record EC_{1:1} in dS/m.
6. TURN OFF and thoroughly rinse EC probe with distilled water and replace cap.

Source:

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053280.pdf

Annex 4 – Interview Amanda Stone

Personal experience

1. You worked for IDH The sustainable trade initiative and Nike. What functions did you fulfil?
Started up the cotton pillar of IDH, has seen all of the cotton sector.
2. What experiences did you have with the BCI within these two organisations?
BCI and its standards were pushed and formulated mostly by IKEA and WWF. Other organisations such as Marks & Spencers, Levi's and IDH joined in initial discussions on scaling up the Better Cotton system.
3. Why do you think IDH and Nike considered a partnership and participation in the BCI as a valuable/worthwhile move?
IKEA has great interest in cotton because it is next to wood its main raw material as a basis for the products. For organisations such as Nike and H&M this is to a greater extent polyester.

Ambition, criteria and goals

4. How was the BCI viewed within the organisations? What importance did the BCI play in the organisations?
5. What do you think of the goals, aims and criteria that the BCI set for Better Cotton?
It's an interesting model because the scale and price margin of organic cotton is not an option. Better Cotton makes it possible to step ahead, but it is very easy to be critical on a lot, we have to realise that these are companies that are after profit.
6. What ambitions did Nike and IDH have when they joined the BCI? Did their view on Better Cotton match the ideas of the other BCI partners?
Little political debate to her knowledge, IKEA presented the ideas and the rest followed.
7. Were the BCI criteria based on scientific knowledge? Do you think the criteria are appropriate?
Not sure, but probably there is scientific knowledge, measurements and impact methods present.

Evaluation

8. Do you know how farmers are evaluated on their BCI practices?
They report to the regional department on the development made, in terms of pesticide use and fertilizer etc. Although in the beginning the BCI aimed to control and monitor everything as they scaled up this proved unsustainable. Now control is less and more is handed over to cooperating partners.
9. Do you know whether evaluation of the BCI practices leads to a review of the BCI standards and criteria?
The idea of improving the practices each year leads to an adjustment of the requirements and standards for the farmers per area and situation.

10. How do you see the future of the BCI, where do you think is room for improvement?

Developments like in Mozambique where the national government took up BCI standards in national law as a requirement for cotton production are the real impact makers. This is the future, when BCI is non-existent and all cotton is produced in this way as a norm.

Arvind Limited & Experience

1. You currently work as the Head Agribusiness at Arvind Limited, could you briefly explain your function and main activities?

Responsible for setting up the farm projects that are in the sustainable initiatives of organic cotton and BCI. We identify areas that are suitable for either organic or BCI. Based on that we get into an agreement with farmers that enter into a farmer group who are trained by a team of well-trained agronomists that carry out all the extension activities of transferring knowhow and technology of sustainable farming to the farmers, all based on the standards, principles and requirements of BCI or organic.

- So in this way you are the implementing partner of BCI? In 2010 Arvind Limited started implementing BCI, initially they started with Solidaridad and in 2011 AL became implementing partner in India. Currently only in Akola, Maharashtra.

2. What I understood from Amanda Stone's e-mail is that you have extensive experience with the BCI and organic cotton, is Arvind Limited involved in both? What are the greatest differences?

Big difference because organic's focus is sustainability while BCI is a stepping stone to sustainability. Arvind Limited feels that a BCI farmer should move towards organic.

3. What do you see as the added value for Arvind Limited to participate and contribute to the BCI?

We are part of the supply chain. So we operate from farm to fashion, farms, ginning, spinning etc. Even retail, we are there. Sustainability is very important for the BCI, Arvind Limited is in India for 80+ years and is one of the major textile companies, mostly agribusiness. Cotton is a valuable raw material, however times have been difficult in the past due to extensive droughts and decrease of the price. Arvind Limited has taken up the role to help farmers to make sustainable living from cotton production as a type of social responsibility.

Through the BCI Arvind Limited sees the possibility to bring economic basis for the farmers while at the same time contributing to environmental sustainability.

- Why do you work with organic and BCI?

The area where we have organic, BCI does not grow well, because the soil is very degraded, too saline due to saline groundwater. The yield when we started in 2007 was around 200 kg per hectare of seed cotton on these organic farms. With techniques to improve land and water management, tools for rainwater harvesting and micro irrigation the yield was raised to 600-800 kg per hectare after around 8 years.

The BCI farmers are located in areas that use some irrigation, that fields are better than the organic. The BCI farmers have better land holding arrangements, better quality of soil, but produce around 400 kg per hectare.

- For me it is particularly interesting to know about soil salinity. How did the reduction of salinity at the organic farms take place

The soil there has a natural saline value. Through irrigation practice improvement the salinity was reduced somewhat, but one is never able to eliminate all salinity.

4. What do you think is the added value that Arvind Limited brings to the BCI?

There is a problem in the BCI with the traceability of the BCI cotton, because Arvind Limited has been part of the BCI for 5 years and because it is present in all facets of the supply chain, it is the ideal partner to accommodate the demand with the supply.

Ambition, criteria and goals

5. What ambitions does Arvind Limited have for more sustainable cotton?

Organic is small in terms of volume and also because the premium that exists for organic cotton, I think it will be impossible that organic becomes a mainstream commodity. Not even 1 % of the global cotton production is organic so there BCI has an advantage over organic that it can become a large player. BCI is a brand-driven organisation with a big sustainable ambition attached to it, in this way it reaches a lot of people, but Bt-cotton (GMO) is allowed and I am not sure how customers will respond to this GMO in the future.

6. How do the ideas of Arvind Limited for more sustainable cotton match the BCI standard?

Arvind Limited has its doubts about the sustainability of GMO cotton, but I also think BCI is just aiming to produce as much better cotton as possible without checking the quality of the production processes. It should evaluate more on farm level to understand actually how sustainable the produced cotton is and what effects and impacts it has.

- Because now the input-indicators are reported on, but there is no research into soil-quality?

Yes, I think the way labour and other elements are evaluated now it not a scientific way of evaluating it. Because BCI keeps expanding without extra staff I think it is impossible to track the developments of BCI in a correct way. It should keep growing that is good, but there has to be balance in the practices. So that the quality of the initiative is maintained.

7. What position does Arvind Limited take in during discussions in the council on the development of the standard?

Evaluation

8. How does Arvind Limited evaluate its participation with the BCI? Does the goal Arvind Limited has for more sustainable cotton match with the current outcome?

We are very small in projects that we are doing. Important in evaluation of the BCI projects is that it takes a lot of time to bring change. Also because the farmers are often illiterate, so to explain the BCI practices takes more than 2 seasons. If you do not take this into account the BCI projects are just a waste of money.

- Do you have any long term evaluation methods? I know the BCI requires only input-indicators, but does Arvind Limited do more measurements?

For us, it is very common. We started in organic, so most of the things that BCI required we were already doing. It was not new for us, all the documentation we had we shared with the BCI. And in this way we helped the BCI also set up their standard. Our experience also had been taken into account. We have a lot of information, we involve also other parties to evaluate the soil conditions, they assess for us.

We report all elements that the BCI requires but we do some things extra, that are beyond the BCI scope: extensive water management projects that are assessed by third parties to understand the impact of the practices.

9. How does Arvind Limited evaluate its BCI-projects on the ground?

10. What indicators of progress does Arvind Limited use for evaluation of its projects?

11. How does Arvind Limited evaluate long term effects of its BCI practices?

12. How do you see the future of the BCI? What do you think of the goal of to take up 30% of the world cotton production by 2020?

That is not a big challenge, they should be able to achieve that if they continue in the way they are doing now. A question is still the quality of work, decent work is not good yet.

The future depends on the funding of the BCI, if any other sustainability programme are set up the BCI is threatened. I do not really see it will last long.

Thesis research

13. For my thesis research I will evaluate the environmental impact of the BCI practices on the soil conditions of cotton fields in the Maharashtra region in India. What do you think of this initiative?

I think it a very interesting study, and if you ask me about the results I think it will be the same for BCI, as well as non-BCI. Because there is nothing changing at all, the only change that you may find is because the farmer that were selected to take part in the BCI programme were farmers with a good soil, good health and were already producing a lot of cotton. Farmers who are not in do not have a good soil quality, so this might be a reason for why you would find differences. But organic only produces actual change.

14. My aim is to talk to as many people as possible that either have knowledge about or are active within (an organisation of) the BCI. Do you know people that might be interesting for me to talk to – e.g. BCI members, members of the BCI board - and could you get me into contact with them? 11-14th

IDH en persoonlijk

1. U werkte tot voor kort bij IDH als fund manager van het Better Cotton Fast Track programme, kunt u me kort uitleggen wat deze functie inhoudt?

Programme manager for cotton. Financial manager of funding programmes. Cooperation with implementing partners in 6 countries, Mali, Mozambique, China, India, Pakistan and Brazil. Call for proposal (implementing partners were selected by BCI, already trained). Are selected for the BCFTP of IDH after this training programme.

IDH is a strategic partner of the BCI. Funds and support several projects through implementing partners. Cooperating with WWF, local NGOs, local companies, Solidaridad.

Dave Boselie, learning & innovation. Cotton is one of the programmes for which impact studies are done into the result of investments, BCI. Institutional investments from IDH from beginning of BCI and support of implementing partners.

Learning & innovation does: impact study into the BCI standard and criteria: profitability of cotton production should increase, environmental pressure should reduce, livelihood improvement. Dependent on BCI monitoring of farmers as a starting point for IDH analyses, subsequently asked Wageningen University on quality of these studies, are these robust enough, what follow-up studies should IDH start.

BCI is one of the few voluntary standards that does collection of performance data as specifically as BCI does. Unique initiative, also due to comparison BCI & non-BCI farmers. Possibly IDH will regard BCI as an example for other standard for their system of performance data collection.

Based on the findings of the WUR researchers IDH will do research into toxic loading (of farmers & soil) in terms of impact. But in the future also on water and livelihood. The research into toxicity will be based on input values and decomposition patterns of the chemicals.

2. Wat ziet u als de toegevoegde waarde die het BCI aan het IDH brengt? Denkt u dat deze toegevoegde waarde (of reden om te participeren in het BCI) anders is voor de verschillende soorten partners?

IDH believes that such an initiative is an important tool in market transformation. Voluntary standard are part of the strategy to attain a scalable future for sustainable cotton. Organic cotton is not scalable. IDH believes in mainstreaming of the cotton and organic and Fairtrade are 'premium' commodities so does not have this potential. The BCI is different in terms of implementation, because the starting point is the business case in the long term. Is there an appetite to invest for companies, is it a business case that does not need subsidies in the future. Steering on costs in the BCFTP is based on the idea that in the end the organisation can do its own investments. Our experience is that this strategy attracts companies, CSR needs to be explained to the CFO as well, if we are still talking to CSR managers than the BCI is not yet in the correct department (procurement, CFO departments). Part of the learning agenda of IDH, development of a project should get a mind-'switch'.

3. Welke toegevoegde waarde brengt IDH het BCI?

1. Funding partner (delivers lots of money) co-investment to produce sustainable cotton at larger scale. Especially important in areas in which projects are not 'bankable' yet, commercial loans are not given, so IDH supports.
2. Matchmaker between local governments, private sector, NGO. Setting up a platform to tackle issues in a competitive manner and to attract organisation to join the BCI.
3. Learning and innovation. Effectiveness and efficiency studies in fund managing of IDH. Monitoring of costs and whether programmes can be more efficient also with the idea to make the programme self-sufficient at a certain point. How many euros is used to train a farmer. Critical strategic/learning partner.

Investing committees that decide on funding of the BCFTP are also dependent and responsible for losses or issues. In this way IDH makes them not only donate money, but also actively participate in finding ways to make the return on investment and to understand the supply chain and the commodity. Everyone wants to develop strategy that will in the future make the BCI economically sustainable. CottonMadeinAfrica is cooperative partner, here BCI does not start projects.

Criteria en doelen

- 1 Op welke manier heeft IDH invloed op de formulering en vaststelling van de criteria van het BCI?
- 2 Wat is uw visie op de criteria van het BCI voor het produceren van Beter Katoen? Bereiken deze het doel van een duurzamere katoenproductie?
- 3 Sluiten deze criteria en doelen aan bij wat IDH heeft als visie over het produceren van Beter Katoen?
- 4 Welke ambitie heeft IDH als het gaat om de toekomst van (duurzamer) katoen?

On the long term it does not matter which standard attains levels, but IDH wants mainstreaming of sustainable cotton, irregardless of which label. Ideally the whole world produces cotton according to BCI-similar standards (like CottonMadeInAfrica). Overall good practices is the goal. For IDH it is important that cotton production is a viable business economically in the long term, livelihood should improve. And next to that the negative impact on environment and society is reduced.

IDH incorporates the possibility that some farmers will not make it, because their business was not proven profitable. Viable business is most important:

Private sector development programme: belief that a healthy private sector development leads to achievement of societal sustainability goals. Livelihood is most important for IDH.

- Does IDH pose requirements to the BCI regarding any levels that the standard has to reach?

Continuous improvement. IDH sees some difficulties regarding gender and child labour. ILO cooperation to adjust on difficult issues. Social issues are more difficult to tackle. IDH thinks organisations should cooperate to look where improvements are possible and necessary to make sure the label is continuously improving.

Evaluatie

- 5 Hoe evalueert IDH de huidige stand van zaken binnen het BCI, wat gaat er goed, wat kan er beter?

IDH project evaluation 2x a year. Implementing partners report how much farmers they will aim at and then subsequently report on how much was achieved. So the money spend is carefully assessed, 10% difference in goal achievement is ok. IDH always discusses differences in expectations of implementing partners to look at causes for low response/success.

Corrective action is applied to projects of implementing partners on several issues in the training. IDH always searches to causes of weak-performing and then BCI monitors that adjustment takes place.

Next to regular monitoring IDH does impact study into livelihood in cooperation with ISEAL and BCI in India. Theory of change that professionalising the production of cotton, leads to improved livelihood. Impact study of 5 years, with 3 evaluation points. Environment study into toxic loading study, and theme study concentrated on water use.

- My project was to look at impact, if you only monitor input, can you actually say something about impact?

Yes but according to my knowledge the farmers take soil samples every year as a part of good practice. There are very clear determinants for what should be used, but long term investigation in terms of soil health is not done. What impact do better agricultural practices have on soil health and quality is not studied.

According to Mugiraneza the initiative is still too young to be studied, this is something one does after 5 years. (initiative started in 2009, it's now 2015). Due to intercropping it is difficult to understand the impact of BCI since one also cultivates other crops.

Socio-economics also plays a large role; if there is no money made with the development of cotton, no one is willing to discuss sustainability. Investment in soil health is a very long-term investment, short term thinking is more likely to be part of the smallholders activities.

Boselie: it is also said that if one forbids one dangerous pesticide, the farmer might use double the amount of another not-forbidden pesticide and cause an equal harm.

Mugiraneza: often the most harmful pesticides are the cheapest, so there is an economic element. Sometimes the farmer even knows what is harmful, but simply does not have the money. So possibly on long-term we might say something about the effects on soil health, but we can never say that with certainty.

Boselie: Rotation crop, difficult to attribute the improvements to cotton production, rather than other crops. IDH wants that good practices are applied to all crops, not only cotton. To make sure that farmers make a more knowledgeable decision, but to attribute certain differences in environmental impact to BCI is difficult. In the end we want to see whether there is impact made environmentally by BCI, but this is a very difficult question.

- 6 Hoe evalueert IDH de impact die het BCI toe nu toe heeft gehad/heeft zowel sociaal-economisch als milieutechnisch?
- 7 Is het vergaren van data van de BCI-boeren over reductie/verandering van 'input' genoeg om impact vast te stellen?
- 8 Op welke manier evalueert IDH het BCI programma?
- 9 Hoe ziet u de toekomst van het BCI?

I find it interesting and challenging for BCI to define its own revenue model. In which the market develops so that there is additional payment for the services that a brand/product delivers. Strong dependency on public co-funding, market should take more responsibility. We can be optimistic in that sense, but it is a problem for all standards/labels. System depends on public funding, while expecting the market mechanism. Public funders (Fort Foundation) reduce their grants to the standards, because all parties feel that these sustainable initiatives should be paid for by the market. It is value creation, BCI does not have a logo on its products, so it has to sell the extra value in B2B, making sure that they pay for this element of reputation/risk management: and that costs money.

In terms of % world cotton production, it is currently around 8-10%. Long term goal of 30% would be great if it is achieved. Standards will never achieve 100% world coverage. BCI will never achieve 100%. IDH wishes to create a basic standard of value/production practices, also incorporating national systems that make sure that a basic value is achieved by all cotton production. Making sure worldwide cotton production improves.

IDH is questioned/ has to report to the ministry to the question: are you really making a difference. Can you show that the production of cotton is improving with the funding to BCI. And therefore IDH monitors and steers standards on issues on which it is not performing. IDH wishes to give a message to the standard bodies; it has to become more sustainable. IPC standards portal for transparent comparison of the standards.

Annex 7 – Interview Sachin Gaikwad

KVK & experiences

1. You currently work as the head of the BCI implementation programme at the KVK in Kharpudi, district Jalna. Could you briefly explain what your function entails?

Firstly, WWF and KVK started working together in 2009 implementing the SCI, only sustainability on environmental goals. 2011 BCI project started at KVK in cooperation again with WWF. Implementing partner is WWF, KVK is producer unit in the project. 30 villages at the start, in 2014 20 more villages approached (50 total, 8800 ha, 6200 farmers). BCI is holistic approach towards producing more sustainable cotton, not only for the farmer, but also for the stakeholders involved in the cotton supply chain. This is both on environmentally technical (SCI) as well as social elements, decent work (child labour, safety, non-discrimination, freedom of association). Social element: teachers, health workers, all involved.

Unique because in this BCI-project the cotton can be traced down all the way to the end product.

My designation for this project is producer unit manager. Planning and execution of the activities. In discussion with WWF India and Mr. Sonune we design the activities, we propose this to WWF. Activities like training, awareness programs, projects with schools to teach children at early stage about child labour.

2. How did KVK become involved in the implementation of the BCI programme? Did WWF approach KVK?

WWF wanted the KVK to convert SCI to BCI, first KVK was reluctant to take up also the decent work element, as this was not part of their expertise. They did not have mandates on the social elements, but WWF convinced the KVK to convert the programme.

First KVK was supported by WWF staff to also implement the Decent Work element, because specific knowledge was lacking in that regard. Afterwards the KVK staff was trained and finally only on project basis hired a consultant from outside for decent work elements of the programme.

3. What value does KVK see in the BCI project? Before it started KVK already advised farmers on cotton production (amongst other through SCI) what is the difference?

KVK has done a lot of work in cotton, but has a little limitations. Before KVK had the mandate to work only in 5 or 6 villages, and had to switch to other villages every 2/3 years. So it could not help a large number of villages at the same time.

Through BCI KVK has reached 50 villages now, attracts more scientists from all over the country, is part of agricultural events that are organised by BCI, but increase the position and reach of KVK. People are more aware of KVK and the scientists are able to reach more farmers.

4. What do you think is the importance of an organisation such as the KVK for the BCI programme?

This institution has a great reputation among the farmers and the whole team of the KVK is well attached with the farmers. Also KVK has well connection with agricultural offices in the country. The network and the name that the KVK has, but also the expertise that this organisation has is very important for the implementation. KVK requires 4 scientists to be on every implementation project, one on plant protection,

pest management, soil health management & water management, home scientist (women training). KVK already has large knowledge, that benefits the BCI as well.

BCI standard

5. What do you think of the BCI standard and the requirements for a farmer to become BCI? Are these realistic?

Yes the demands are realistic, but sometimes take more time. All the requirements cannot be fulfilled in 2/3 years, it takes more time. Farmers should reduce the inputs (pesticide, fertilizer, water), and improve the quality of the products. BCI requirement is, that is has to be reduced. In my opinion the reduction has come to be at optimum level now in all villages.

I before forgot to mention also the importance of the social aspects of the BCI. These are also beneficial.

6. Do you think that the requirements of the BCI programme have an effective outcome?

Yes.

Implementation

Cooperation BCI-partner

7. When the BCI project started at the KVK 4 years ago, who instructed KVK on implementation procedures? Who trained KVK personnel on the BCI-practices?

Initially WWF gave trainings in 2009 and 2010. From 2011 onwards BCI organises training every year for the training of the producer unit staff. In these trainings discussion is held on outcomes of last season and on planned new activities (also incorporating changes that the BCI wants to make to the programme). Also personal skills trainings.

Last training BCI made a lot of changes in reporting, data collection which demanded also changes in the programme of the KVK. Data collection was now changed that the KVK only had to report the changes of a few 'example' farmers, that were randomly selected to represent all the other farmers. Before all farmer data was required by the BCI. This is good because sending the reports of all 6000 farmers takes a lot of time. We still collect all data, but not digitally.

8. How was the cooperation between this organisation and KVK? Was input by KVK desired and valued?

9. Is there a regular check-up of the implementation programme and the BCI requirements by this organisation?

WWF keeps a close watch of the KVK. They regularly contact with KVK, during planning and also with execution of the project. They also go with us into the field, if possible. We do not need help on technical aspects of BCI, we know agricultural practices.

However, in case of child labour, farmers ask us why they need to reduce child labour. Because they do not see the relation of improving cotton production and child

labour. In such cases we contacted WWF, because at that time we felt the same way, we did not understand how to explain the farmer what benefit there is for them to eliminate child labour.

10. How were WWF, BCI and IKEA involved in this project?

Communication goes mainly through WWF, the people of IKEA, came to KVK 4/5 times now. This was also to talk to KVK about a drip project, but that project only lasted for 1 year. IKEA also went with us to the field, interacted with the farmers, they know the progress of the project. And what the challenges were, how the farmers are doing.

11. How does the BCI implementation procedure work? How do you approach a new village and its farmers?

Villages are selected by experience of the KVK-staff, they have experience with the villages. They know which villages are most responsive to new projects, those who want technical guidance. One survey was taken which made sure that cotton was the major crop of the village and that farmers showed initial interest in the project and whether KVK has other projects running there already. (If they do not show interest the assumption is that the project will fail).

We have contact with the important people of the village, we arrange a meeting and make the head of the village to invite farmers. There we explain the benefits and requirements of the project. Dependent on how the farmers respond to us, whether they ask more questions, we decide whether to involve the village yes/no.

- So mostly open and responsive villages are incorporated? Will in the future also other villages be incorporated?

Sure, we cannot differentiate between responsive/non-responsive villages. However, we have to start with the responsive villages and later on we can also approach non-responsive villages. Because then non-responsive villages might change mentality as they learn the advantages for cotton production in BCI-villages. This also depends on the BCI & WWF, how long they will remain to cooperate with KVK. BCI aims to work till 2021 with KVK here. They have to complete the target of 30/40% of Indian cotton under the BCI-cotton.

KVK would be able to continue to work on other villages after completion of training and guidance of these villages. This is however dependent on what the BCI decides and whether it will cooperate with KVK in the future.

12. Some non-BCI farmers explain to not have had enough information. What would be a way to also reach these farmers?

13. How does the KVK judge whether farmer produce in a BCI-way? What would need to happen for a farmer to be 'expelled' or 'excluded' from the programme?

We will always try to make the farmers adapt to the criteria, we would never expel farmers from the project. We will keep convincing them, we cannot leave the farmers.

14. During the research I came across some cases of BCI farmers who do not spray according to BCI rules, who spray only chemicals, how do you deal with these kinds of farmers?

15. What is the official statement of the KVK and BCI in the position of women? Should they earn the same, how does KVK define their rights and their current position?

16. Is regular participation at the BCI-training in the village a requirement for registration as a BCI-farmer?

Yes. Self-assessment is done before third party assessment of the BCI-to-be-farmers. See how many farmers are present, how many have brought their farmer field books. Afterwards BCI sends a party to do the same and afterwards the village is offered the BCI license, or not.

Evaluation

17. How does KVK evaluate the BCI project? What are indicators that determine how the programme is evolving?

I think the BCI is a good initiative, but some flexibility is necessary. BCI is often very strict with its criteria on documentation. Verification of LG projects sometimes is too strict and based on elements that not necessarily define a farmer. If he scores bad on one element this does not mean that the farmer is not a BCI farmer, they should be more lenient sometimes.

18. BCI requires you to solely send the statistics of inputs. No soil testing or long-term evaluation is demanded. What do you think of this approach?

If farmer wants to keep the soil good he does not need to test the soil, but needs to use organic fertilizer and pesticide.

19. How do you see the future of the BCI project?

If they achieve the 30% of the world cotton production in the coming years this would be a great achievement. Farmers all over the world will learn techniques and will be benefitted and become happy and satisfied. Also fibre quality will most probably increase, so really 'better cotton'.

In Jalna maybe the BCI project will not be expanded by WWF and BCI. However the techniques will spread as farmers learn from each other to produce more and in a way more beneficial to them as well. So it will spread anyways.

20. Some of the interviewees I spoke to explain that the BCI is expanding too fast in the number of projects and does not focus enough on the quality of the projects it already started. Do you recognize this image?

I do not agree. Yes it is expanding, but it always keeps an eye on the quality. They disqualified one of the projects that the KVK proposed this year, they would not do this if they only wanted to expand. WWF is one of the founding fathers of the BCI, so it might be that they are more reliable on quality than other implementing partners that were not as closely involved.

Annex 8 – Interview Chris Brett

Olam International & Experience

1. You currently work as the global head corporate responsibility & sustainability at Olam international, could you briefly explain your function and main activities?

Work in the production site of various agricultural products, amongst which cotton is an important one. One of the largest cotton producers in the world, concurrent ECOM. Through partnerships Brett aims to make improvements in the sustainability of the supply chain of the agricultural product. It thereby focuses mainly on long term sustainability.

2. Before you came to fulfil this positions at Olam International you worked for various organisations, have you always been interested in sustainable agricultural development?

History in all sorts of agricultural products, worked for a company in Mozambique and for the governmental organisation DIFIT

3. What I understood from Amanda Stone's e-mail is that Olam International is mainly focused on cotton projects in Africa, if I'm not mistaking in Mozambique. What were the experiences of you and Olam International in those projects?

BCI operations in various countries, produces cotton in also many other countries amongst which also conventional. Brazil, cotton made in Africa. BCI into Mozambique, lobbying to aim to get a national cotton revival strategy. IDH, BCI and Olam worked together to explain the need for sustainable cotton.

Mixed experiences, cotton is a difficult product, challenging. Need a national strategy rather than the small projects all over the world, that is not going to change much.

4. What do you see as the added value for Olam International to participate and contribute to the BCI?

Increase yields, farmer make more profit. 0.65 cent a pound, seed cotton price is really low. Farmers needs to increase. Volume increase is also profitable for Olam, because it secures the supply and quality of the cotton as a producer, it is in that way dependent on farmers. They noticed the low yields and bad quality in some cotton-producing countries, so saw that there was a need for a change, one that BCI might bring.

5. What do you think is the added value that Olam International brings to the BCI?

Volume, scale up. Active partner of the BCI. Push better cotton to be produced by farmers. Motivating them as an implementing partner. Encourage brands to buy better cotton, by specifying where the cotton they buy comes from. Buying from Olam ensures that Better Cotton is sold. Because the problem with cotton is the length and complexity of the supply chain: traceability. That is why the forum discussion of the BCI is so important, it brings together all stakeholders of the supply chain. One of the solutions is integrated spinners that reduce supply chain length, because they fulfil more elements of the supply chain.

Ambition, criteria and goals

6. What ambitions does Olam International have for more sustainable cotton?

Less chemicals, less water. Improved variety. Produce more products on less land. Crisis point nr 1. is improvement on labour conditions, nr 2 is environmental conditions.

Organic cotton is a waste of time. Cotton grows in difficult countries. Organic is the farming system: promotion to farmers in Africa of organic cotton while the yields are lower and there is not enough premium to compensate yield loss. The system is not credible as well, because a lot of farmers do not have capacity to treat the land better. Better cotton is still learning, constantly improve.

7. How do the ideas of Olam International for more sustainable cotton match the BCI standard?

Improve everything about the cotton supply chain.

8. What position does Olam International take in during discussions in the council on the development of the standard?

Consulted basis, productivity, labour conditions. Has been member of all roundtable discussions. Has expressed their concern on the issue of traceability. Probably Olam has brought reality into system. One of its strengths is the knowledge of implementation on ground, farmer level, this way it was helpful in analysis of workable implementations. Pretty good consensus within the multi-stakeholder initiative. Ecom

Evaluation

9. How does Olam International evaluate its participation with the BCI? Does the goal Olam International has for more sustainable cotton match with the current outcome?

We need to do more, more pro-active into working with the BCI. Olam has been so busy in other areas and has focused more on improving in other sectors that it is time to push BCI internally more. A lot was focused on the production of small-holders, while marketing has been weak.

10. How does Olam International evaluate its BCI-projects on the ground?

New, 2 years into project running. Recording all the data of the farmer, look at yields and input. Not put it all together, but will be done on short term, is quite early still though. Concern is on the economics, price lowers. Farmer motivation and interest in the production decreases as yields do not rise quick enough and prices of cotton lower.

11. What indicators of progress does Olam International use for evaluation of its projects?

Increase yield on reduced inputs is the aim, so these inputs are monitored. No child labour, so a lot is looked at how fertilizer and pesticide are applied.

12. How does Olam International evaluate long term effects of its BCI practices?

Too short involved, has not been done yet. Unclear what will be done in the future. Olam values soil quality and thinks this is important. It now encourages mulching amongst its farmers. It is concerned with soil health and the organic material of the soil.

13. How do you see the future of the BCI? What do you think of the goal of to take up 30% of the world cotton production by 2020?

Too ambitious, if they get involved in big countries they might have a chance. Not possible to achieve this with small holder farmers. While this is where the greatest gain and challenge in practice adaptation is possible. To make an American farmer a better cotton producer is not problem, he is large scale and probably will comply with all the requirements. There is still a lot to gain with for instance subsistence farmers, who really need to improve their ways of production.

Volume targets were set, but they have to look across on all production. Growth in India and Pakistan, rather large modern countries.

Thesis research

14. For my thesis research I will evaluate the environmental impact of the BCI practices on the soil conditions of cotton fields in the Maharashtra region in India. What do you think of this initiative?

Important,

Annex 9 – Interview Simon Ferrigno

Personal experience

1. From your LinkedIn page I understand your extensive experience in the field of sustainable agricultural production. You were also involved in the BCI project. How were you involved?
2. What were your experiences, why did you get involved? What do you think of the BCI organisation and plans?

Simon was in the BCI advisory committee with several other experts in the field of sustainable agriculture. They advised the BCI in the process of standard development. In these processes not all parties agreed from the start. He mentions often the intrusion of other interests of several parties. The FAO for instance strived for more stringent standards, that would require more than some of the other partners would demand.

However, Simon argues that the most important part of such a certification system is its implementation. The standard does not really make a difference, it's the quality of the implementers. There other interests might be involved that hamper the actual Better Cotton practices, wrong data might be gathered that give a biased view on the progress made. For instance if a private party involved in implementation is also active in pesticide trading, they would probably not have the biggest incentive to bring the number of pesticide use down.

Possibly, also the efficiency of a project is an issue. If contract partners have to make the transition to their implementing partners does this go fast enough, or does it become a very expensive project, because so many organisations are involved the coordination of activities is difficult. People might stay in a project simply because they make money for their organisation.

Large projects have difficulty sometimes with the delivery of extension and training services, is the data that is coming back robust enough to tell something about the quality of the cotton.

An interesting question might also be, with all the data that BCI has, why haven't they produced a LCA? Organic cotton have done this. The brands of BCI demanded this, they wanted to know whether BCI was really better.

Partner organisation

3. Why do you think partner organisation are eager to cooperate with the BCI?
Eager to cooperate because of the reputational use of cotton these days. Fear is a powerful motivator. It is also an anticipation of what will come in terms of legislation. Especially the EU or its member states are likely to change their laws on cotton, regarding carbon use, water used, pesticides applied etc. The best brands are really thinking ahead.

4. What value do you think does the BCI offer to its member organisations?
It is a group that makes claims on their sustainable character. On the other hand BCI offers them an attribute to show its donors, investors and customers, explaining its sustainable and strategic activities.

Goals, standard, aims

5. How did the goals and BCI standards develop to be as they are now? Are they still under development? What changed in the past years?

- What are issues that BCI and its members come across?

There were issues on the fact that some parties wanted the rules to be less stringent, to make it easier to sign people up, while others wanted it to be really making a difference. For instance considering the US, there was a fair amount of tension over the fact that Cottonlink in the US thinks that all US cotton already meets the BCI standards. Certainly some on the board and within BCI disagree with that.

Can BCI grow so fast and at the same time deliver something really sustainable or something less damaging. It can really easily be slightly better cotton. That is still a risk, also on traceability, people have no incentive to understand what is coming into their supply chain. Then other labels that do trace their products, have to pay these costs of tracing their products and also add costs on monitoring the impact.

A client of mine is currently working to do soil research on a 10 year scale, in order also to say something about carbon sequestration. The client has to evaluate whether BC is the best vehicle, because you spend a lot of time with the suppliers and the farmers, while you do not know anything about the quality of the standard because the BCI might be growing too fast.

6. What do you think of the goals, aims and criteria that the BCI set for Better Cotton? How do they suit the various differing regional situations around the globe?

The standards were set to make it fairly low barrier to entry, with continuous improvement, that is the goal/ large scale initiative. Also to make regional differences in terms of agronomy, but also to attract economies of scale (responding to the difficulties that organic and fairtrade cotton have come across). It is the biggest 'sustainable' cotton, but it is not the best in market uptake, because of traceability problems. Ginlevel = 50%, brand level = 20%. A lot of BC ends up in conventional supply chains, it is still better cotton, but just not traced.

Evaluation, soil salinity

7. Does the evaluation of the BCI practices lead to a review of the BCI standards and criteria?

The practices of the farmer are recorded in a farmerbook. Here the labour conditions, the input of chemicals and water are registered. 3 levels of evaluation: the implementing partner, second party audits by BCI staff, third independent part that verifies the data. Previously these data were analysed by the BCI headquarters, but it has become so much that they were unable to do this any longer.

- The evaluation is based on what goes into the soil?

Yes, it is based on the quantitative data, pesticide used, fertilizers used. Data on longer.

- Is there data collected on what it does to soil, for instance?

No, I think it is a terrible mistake because soil is probably the best indicator we have for determining the impact of a project like BCI. Soil tells us much and also in terms of money does not less. You can say pesticide use has been reduced but if you then look at the soil and it shows it does not have enough nutrients or does not retain enough water, because it is very saline.

7b. So evaluation is done only on the input into the soil and not on the actual impact it has on soil quality?

No it is not, in fact it would be a very good idea to analyse the soil on long term impact of the practices. There are many ways to understand what you are doing is actually improving the soil by studying it. For instance also with carbon sequestration and pesticide accumulation, but also with salts. There is no long-term evaluation.

8. How is dealt with scientific research and evidence?

We tried to take a pragmatic approach, we tried to use existing documentation on for instance picks & pops conventions on allowed and not-allowed pesticides. We did not want to reinvent the wheel, people coming from the conventional industries sometimes thought the existing documents were too stringent.

Now there is a problem with the neo-nicotinates, which is a problem both for BCI and CottonMadeInAfrica, who still allow these pesticides, but they are now implicated in the colony collapse disorder. So this should be re-evaluated within the standards, should a sustainable label use products that are seen as involving a major risk.

Various scientists and specialists were asked to be in the advisory committee of the BCI to define the standards and to support this with a scientific basis.

- How was the role of IKEA in this?

Well they were the founding fathers of the initiative and the standards were very much based on their idea of sustainable cotton. IKEA's initiative was based on the idea that organic cotton would never supply all the cotton they needed, because their goal was to be 100% sustainable already then. I think as an individual brand probably there would be enough organic cotton if they backed it and waited long enough. But to go from conventional to organic cotton takes a very long transition time, not only in the years that a farmer cannot sell as organic, but also in the development of the soil and the crop harvest to be at full capacity. Converting to a productive organic takes around 10 years. In that sense if you try to do something quickly you would go for better cotton. In an ideal world you would have the ambition to convert all the better cotton farmers to organic cotton in time, this is not a goal of the BCI. They are more focused on getting people in, rather than making it really sustainable. They may in the future, but their goals are now very much focused on what they promised the donors and the brands: converting as much of the world's cotton to BC. Because with organic we never know how much of the world's cotton production potentially could be organic? Another argument involves how we make sure the farmers end up in the best system, before any donor should check whether the farmer should be BCI producing, or not cotton at all, because it is often grown because it is the only organised market in India and Pakistan. While in Turkey, a lot of farmers switch to vegetables or other products that have a much more stable and profitable market because there the system is better organised.

- How did IKEA position themselves?

They were very eager to think with us and they were very ok with banning elements that were marginal, slight risk or concern, then they would look at possibilities to eliminate it. The only red line would be if there was no alternative, then they would have to keep using it until something better was available.

Disputes were there with for instance implementing partners who had a role in trading as well, they would be less radical and more precautionary in their approaches.

- But in the end everyone can do as they please and within own interpretation because farmers just have to use less.

Yes, unless it is on the list of banned pesticides. Interesting is to see how things go with the neo-nicotinines now. Because brands have been saying that these are posing a risk on their reputation, so that something needs done on this.

9. My thesis focuses on soil salinity, do you know how this issue was treated in formulation of standards?

10. Often soil salinity shows, only after several years, do you think there is a long term evaluation?

Future

11. What do you think makes the BCI such a success?

Great funding and a lot of staff working for it. Other cotton organisation have much less of both. Also the fact that many large organisations were part of the BCI from the beginning such as IKEA, Marks and Spencer's gave the message to other companies that it must be 'good' because all these large examples are in. A danger is also these donors, because they might all of a sudden step out of it.

12. What do you think are its weaknesses?

The fact that it focusses solely on quantity and changing the world into better cotton. One should step down and stop expanding for a moment to focus on the quality of its products instead of its quantity.

A problem is that Better Cotton might be produced in areas that are not suitable for cotton or where there is conflict with food security or water use in the area (in Africa). I have also come across a massive landclearing in Ethiopia for organic cotton, that might also be a problem for BCI, but I heard they are going to tighten the standards on land use, making sure it is not in conflict with land rights and other purposes (NOT PUBLIC INFO YET).

13. How do you see the future of the BCI?

It seems to go for its targets of converting the world into better cotton, but it should tone down. Also because there is the danger that land is deforested to produce cotton or that it becomes as substitute crop for food, which is a competition we do not want. BCI, and other roundtables, has been pursuing their message as if we can continue growing while I think we should understand growing is not sustainable. Instead we should promote to pay more for less and try to bring consumption down in this way.

Thesis

14. What do you think of my initiative to evaluate the practices on environmental impact in the Maharashtra region?

Great, I think this is really necessary and that this needs to be done more.

Solidaridad & personal experience

16. Before you started your position at Solidaridad, you worked at the BCI board in Geneva. What were your experiences and main activities as a traceability advisor and a governance and operations coordinator at the BCI head office?

What is important to realise is that when I started working there the BCI was still only a project of WWF. It did not have a legal entity, in the process of discussing about the standards in India, Pakistan, West-Africa and Brazil. Isabelle set up the governance & operations, setting up the legal entity. Standard approved in 2009, projects on the ground, better cotton started. Then a traceability coordinator, first in cooperation with UTZ, now Chainfood, changed because solutions by Chainfood suited the better the traceability system that BCI needed. Particularly difficult to trace the cotton because the supply chain is complex, a lot of steps between raw cotton & clothes.

Isabelle found the ambition of the BCI interesting and the fact that it was a multi-stakeholder organisation.

17. How do those experiences in Geneva differ from your current position as senior programme manager Cotton at a BCI-partner, at Solidaridad? What are your experiences so far?

Solidaridad is a member since 2009: implements projects for BCI. I was interested in seeing the other side. Implementing is running the project on the ground: local partner cooperation, training the farmers, collecting results. BCI does not implement the project themselves, they have the implementing partners for that.

18. What do you think is the added value for Solidaridad to join and contribute to the BCI? Do you think this differs among the various member organisations?

Solidaridad has a long history in Fairtrade in the Netherlands, several organic cotton projects. Solidaridad was already busy with cotton and then BCI was seen by Soli as a potential to upscale the production of sustainable cotton. Because organic and fairtrade is still niche, and BCI has possibilities to overcome that. Soli wanted to be involved because it wanted to shape the way in which the BCI was going and invest in that potential to mainstream sustainable cotton.

- Organic cotton is quite niche also because it is quite stringent. Does this not conflict with Soli's ideals?

Soli is still doing organic cotton projects. We say that we are standard neutral, so we work with either standards, depending on the context, the needs of the farmers and the capacity of the farmers. A big part of our project portfolio is BCI, but we still have organic cotton projects, and we work with both. And we think there is space for the 3 standards in the market but when we talk about mainstreaming BCI has a competitive advantage, at the moment. So Solidaridad want to have a bigger impact and that is why it wanted to join.

19. What do you think is the added value that Solidaridad brings to the BCI?

We are also part of the council & we are a member in the NGO category. Our role is to make sure that the BCI is a credible organisation. Make sure that processes focus not only on the needs of the private sector, but also of the farmer and the public good. The BCI standard is revised and through our work we have good environmental, social knowledge and we make sure that these are taken into account. On these elements we also work together with universities.

Ambition, criteria and goals

20. How did the goals and BCI standards develop to be as they are now? Are they still under development? What changed in the past years?

Process to set up the standard was a pretty long time of consultation, 2004 until 2009. Open consultations with the draft version online, anyone interested could give feedback. But also pro-actively searched for expert input on the standards. The standard should be applicable globally and because you have very different context in which cotton is grown we picked the 4 countries, in which we had meetings. There were discussions on what should be included in the standards, how should it be monitored. And the outcome of these 3 years consultation, both in these countries but also globally where we had meetings in Europe and the US with brand & retailers and NGOs. The result was the first version in 2009, it was used for the first years as implementation and it has been reviewed in 2012 and again it went through broad process with all the BCI-members.

- Was there any particular reason to do this in 2012 or?

It is just good practice to do it regularly, but it is a lot of work. Because and you have to do it but also you have to re-train all the implementing partners and farmers. The tendency is to make the standard more stringent so it requires another round of training, but you want to do it regularly, because of emerging issues or because some elements were not taken into account so well enough in the beginning. And during implementation you notice, oh this we have to do different in the future. You want to review it, but not too often. The first revision was 3 years after, also because the period 2009-2012 was the first strategic plan. I don't know what is the plan in further years, it just has become member of ISEAL, so it has to revise its standards for that.

21. What do you think of the goals, aims and criteria that the BCI set for Better Cotton? How do they suit the various differing regional situations around the globe? How free are implementing partners to adapt practices in their regions

The BCI has the minimum criteria, this is the minimum that may be done, for the farmer to call its products Better Cotton. And then regarding the training, you are free to design the training as you want, but obviously the farmers implement the practices. There are a number of best practices that are used by a lot of NGOs, although you have freedom. Farmer training schools, extension farmers, but you are free to use what you want. But BCI has to be that the farmers use the practices taught to them, what these practices are depend on agronomist context, social context etc. Solidaridad used to have a project in Brazil, with smallholders, but of course this is very different from India or West-Africa. There is for instance in Brazil no issue with child labour, so this is a criteria

from BCI, which is by default met in Brazil. But there are issues of migrant workers, who are asked for harvesting, so on this requires more attention. So every project should start with an inquiry of the local context, and a comparison with the BCI standards. Once you know these issues, you can adapt your programme practices to it.

- The standards want farmer to use less, but does not require how much less. There is no set-target on that, from where you start you have to improve each year, and that differs per country and region.

22. What ambitions in terms of more sustainable cotton does Solidaridad have?

At the beginning it was mostly to see how these new standards would help create more supply of sustainable cotton. It has been really a process, actually checking that it really had a positive impact. It is more learning by doing, there was no specific target. We just wanted to try BCI, to try it in different regions. Solidaridad had a broad context.

- But differences in what needed to be done for better cotton among the partners? I don't remember any issues, because the way the decision making is, is that it is really consensus driven, so the key-decisions are 99% of the time reached by consensus. In which the NGOs, private sector. Solidaridad has always seen its requirements met, if not exactly met. This is always with MSIs, as long as everyone has the right mindset, people work towards what is good for the organisation. So you keep your own hat, but you also have to think in the interest of BCI. Solidaridad wants the BCI to work, for Soli, but also for the brands because otherwise there is no BCI.

- Does Solidaridad have a greater flexibility in this than brands & retailers? No, because these organisations have the opportunity to see the point of view from various parts of the supply chain and take feedback or new ideas back into the organisations. They are not part of the BCI for nothing.

23. How does Solidaridad reflect on the BCI standards and the criteria? Does this match with the aims of Solidaridad? Are there differing ideas of the other BCI partners on the standard?

One thing is the involvement of BCI & there is also an project evaluation. As long as we think it is a credible organisation we remain part of it. When we think it is not strategic anymore, we would redraw.

Projects on the ground, we have to provide BCI with research indicators of the projects every year. The analysis of these results is done by the BCI, Solidaridad is not able to analyse all these data. At the moment it is incorporated in the harvest report by BCI. Solidaridad does analyse the number of farmers participating, volume of cotton produced. My colleagues on the ground, monitor the project regularly, ongoing monitoring. We get funding for this project, so we report to the donors.

Evaluation

24. How does Solidaridad evaluate its programmes and how are possible adjustments made? Do the set goals of Solidaridad match with the actual impact?

The way the BCI gathers feedback is by checking with implementing partners, how difficult is it to implement, how does it work with training farmers? Land right issues are currently not in the standard, and Solidaridad think it should be in the standard, so this is what Soli would raise to BCI.

- There is the trade-off between scarcity & negative side effects.

Obviously you do not want adverse impacts. It is an interesting question, water use is such a big problem, so there is a lot of focus of BCI on this. If such a problem happens on a project I would see it as the responsibility of the implementing partner to report this to the BCI. Whether it should be included in the standard or not, it should go through consultations. But I do not think it happened at this stage.

25. How do you see the future of the BCI?

I think it is going to continue growing, they are probably going to meet their targets of better cotton being 30 % of the world cotton in 2020. I think it will grow strong and will remain the biggest standard for sustainable cotton. But I think also it would be interesting if there would be more learning between BCI, Organic and fairtrade. There is space for all three, but they could learn from each other.

It is a risk for BCI, because by some it could be seen as doing green washing, so it depends on what you are aiming for. Organic is still 2% of the world cotton, with that it is not changing global practices, but BCI is. That is why I think there is space for all, it might be a stepping stone to go from BCI to organic. Organic does not allow for GMO, BCI does, based on the principle of reality because 80% of the world cotton is GMO now. Every standard has advantages, but also drawbacks. Weakness of BCI is it can be seen as greenwashing, it accepts GMO.

- Do you think BCI should operate in a different way to avoid this idea of greenwashing.

Well I think they are very transparent, and I think that is the best way to avoid any NGO going after you. And they have put a lot of time and effort in thinking about these issues. GMO was debated a lot, after a while was decided that BCI was going to accept GMO, the decision was reached at the end was taken by a lot of people. You can disagree, but you know what they stand for.

Thesis research

26. Solidaridad is also present in India with various farmer training programmes, what programmes does it currently implement in India?

Some projects started in 2010 and some projects have started only recently. What is important for Solidaridad is creating producer organisations, we do not intend to keep implementing projects forever, everywhere we start project we always have an exit strategy. We build the capacity of producers to become organised in their own organisation, in any case we work with a local partner (NGO or business) and we make sure that this local partner is able to continue managing the project. All of the projects started in 2010 are still monitored by Solidaridad, but not implemented anymore. Solidaridad also received prices on this in India, as well as in Mali. But this all takes time, before farmer accept and work with BCI. It might take some time, the idea is also

that farmers keep improving, it takes some effort. Also social questions and decent work takes so much effort, because it needs to change the way people think.

- How do you approach farmers?

The office in India has partners, that already work with farmers and implement the BCI standards for them. They are already part of a community and a network, so they can encourage farmers to participate.

- Are farmers eager to cooperate?

What is important is to explain the potential benefits to the farmers: increasing profitability because input costs are lower & you increase productivity. Market access because brands want this better cotton. What is difficult that in the first years input costs might go down, but productivity might not. Also selling their cotton as better cotton to the middle men, working with ginners and spinners, to make sure that actually the demand meets the supply and there are so many people to engage that the traceability is still an issue. Supply & demand are difficult to meet each other, due to the steps and every step needs to be convinced that Better Cotton is demanded. Changing suppliers might be necessary to work for this Better Cotton, and people do not like change. Potentially this involves traditional farmers who are reluctant to accept the business model, probably the first year a farmer is convinced, but if the result does not show fast enough farmers might get tired.

27. Are you familiar with the practices of IKEA & WWF in India? If yes, what do think and know about them and what do you think of my initiative to evaluate the practices on environmental impact in the Maharashtra region?

IKEA is leading because they started even before there was a standard with calling it Better Cotton while there was no verification system. I think when they started there was no element of decent work, and that they still do not regard this as most important.

Annex 11 – Interview Sumit Roy

BCI was conceptualized in 2006/7 and WWF international was part of that project from the start. In fact the first BCI project was executed from the WWF office, WWF is one of the implementing partners of the BCI in India. WWF has BCI projects in the Warangal, in Maharashtra and in Punjab. In the years thereafter stakeholder meetings took place in Hyderabad and Aurangabad to verify and further define the BCI-concepts and standards, a process that also took place in other areas of the world. In 2010 the principles and criteria were finalized and the system of implementation and verification. The first project and licensing was in 2010 in southern India. In 2011 the project in the Jalna district started from Aurangabad WWF office. Before the SCI or Better Management Practices in Cotton already started in this area, BCI added the Decent Work element.

IKEA started its funding support in Warangal, Andhra Pradesh, but then decided to move to Maharashtra as the company required a different type of cotton. The project in Warangal was then taken over by Marks & Spencer.

Punjab is completely different from the rest of India, their system is much more advanced and their land holdings are much larger than Maharashtra/Warangal. In Jalna and Warangal it is easier to convince the farmers to convert to BCI, whereas Punjab farmers have more knowledge and economic power. To convince them and explain the project took longer time, but now it is running very smooth. Here there was already the BMP installed, in Punjab we jumped directly to BCI.

WWF & personal experience

1. You work at WWF India for amongst other the BCI projects that WWF implements and coordinates. Could you briefly explain your function?
2. What are your experiences with the BCI projects that you have been involved with in India. General figures or ideas of what the project has delivered? What regions develop well, which develop less?
3. What is the most important reason for WWF India to engage/initiate the BCI?

WWF decided to take part in the BCI because of the waterfootprint of cotton production, in terms of quality and quantity. So BCI has a lot of elements that are core to the WWF principles. Although it is not our core principle, WWF feels that to make an initiative a largescale project one needs to look at environmental as well as social issues, which is why we also focus on the Decent Work element, the social component. We adapted to this social component. WWF wanted to join a programme that could establish a market transformation, which is why WWF chose to take part in the BCI. Also, other large companies are part of the initiative which enables the BCI to make a big impact, currently 5% of cotton in India is BC. 6/7% on world scale. The best way to make sustainable cotton more mainstream. In 2006 globally conducted a waterfootprint study of commodities, with the help of IFC, 5 crops consume most water: water, rice, sugarcane, cotton and meat. WWF is part of many MSI's, RSPO, RPS, FSC, MSC, Bonsucro. So taking part in the BCI is in line with all the other activities of WWF of being part of large MSIs.

4. What is the added value that WWF brings to the BCI and its activities?

In India, though we are a implementing partner of the BCI we also have a position in the governing body of BCI. It is not only the implementation we are doing, but also regular inputs to the policy of BCI. BCI since 2010 has gone to various stages, here WWF continuously helped by giving technical support to fine-tune the BCI-practices. We will conduct an impact assessment, to see the impact rather than input changes. Impact in terms of hydrology, soil health and environmental impact in general. Long-term impact, we want to see after 5 years if changes have occurred. We want to understand what the driver currently is, is it the market? Or sustainable drivers? Environmental issues might also drive changes, water scarcity etc.

Ambition, criteria and goals

5. What ambition does WWF have for more sustainable cotton? How does it view organic cotton?

Organic is not easy to execute, it takes 3 years to convert from traditional to organic. BCI is flexible, it adaptable by the farmer. It is extremely difficult to convert a high-footprint farmer to organic, it takes a lot of time, it is much easier to convert the farmer to BCI first. Organic is possible in areas where farmers do not have access to fertilizers and pesticide anyways. Punjab is a good example, here organic has no foot on the ground, while BCI is currently 12.5% of the farmers. This was high-intensive farming here which is now more sustainable in BCI. WWF will not continue as a implementing partner, we will keep being the technical support. There is an increasing number of implementing partners in India, so WWF can phase out. For example, KVK can do the work here on their own, funding is different, but we can leave the implementation to the KVK in the near future. Strategic support WWF will give to BCI.

WWF wants to consult BCI on making steps in terms of mainstreaming BCI, for instance the government of Maharashtra had set up their own sustainable cotton project, CAMS, however now all of the CAMS project has become BCI. By cooperating with governmental bodies, BCI can move ahead more quickly. See whether we can contribute to the water flow and by increasing water retention.

- Do you see the opportunity of BCI farmers to convert them to organic cotton?

No WWF works with organic cotton in areas in which there is not much access to fertilizer and water overconsumption. WWF fears that these farmers in the future might convert to high-intensive farming. There WWF sets up projects to convert to organic cotton production because it is relatively easy to make that transition. We do not see the stepping stone, we see it as two different things that happen in two different phases.

6. Are the ideas of Better Cotton and the standards in line with WWF's criteria for better cotton? Or are there particular elements that WWF considers not discussed enough.

Right now BCI is focusing on the production system which is only from sowing until harvesting. It needs to be socially, economically and environmentally better. However after that it goes to the ginners and the spinners and some of the BC is lost to 'normal' cotton. At the ginners some social elements or labour elements might be 'bad', so here the cotton loses its value. Farmers will design their own way of sustainability now,

Also in the production of the cotton seeds that the farmers buy the water use is not taken care of or reduced, so that part of the supply chain is not 'Better' either.

Evaluation

7. How does WWF evaluate the outcome of the BCI overall?

8. I understand that the farm's statistics are reported to BCI by KVK, how does WWF evaluate the projects it has?

After KVK evaluation the BCI hires third party auditors who evaluate and monitor the farmers developments on water and chemical use for the WWF.

9. What indicators does WWF have to evaluate the projects?

10. Is there a method to evaluate long term effects of the BCI practices? Does WWF involve scientists with this?

Environmental impact assessment will be done by a water impact scientific center and the social component will be done by a consultancy company. Modelling of water availability indexes, water footprint analysis (also quality), soil health: nutrients, trace elements,

microbiological elements, impact of pesticide on the environment, carbon footprint. Probably also pH, salinity & acidity also studied.

Projects in India

11. What is the most importance change in terms of Decent Work that occurred due to BCI in India?

12. How is IKEA involved in this project? Do they have people on the ground or do they communicate through you, WWF?

Steering group in which WWF and IKEA have a seat that comes together every 6 months to discuss strategy and activities in the coming period and how WWF India & Pakistan. IKEA focuses 2015 is a year in which water &

Traceability is a 100%, ginners has a specific storage for BCI & processing track for BCI. Then it goes immediately to the spinners. IKEA can guarantee the traceability of a 100%. For BCI mass balance was accorded after ginners, IKEA guarantees physical tracking for the whole chain. The middle men sell the cotton to the ginners from the farmers, but they do not physically move the cotton. SO the middle men might buy & sell the BCI cotton, but the ginners have a list of farmers & a code farmer, who are BCI and therefore it is not a problem that the middle men sell the cotton. BCI trains the farmers, ginners, spinners to ensure that IKEA cotton is traced along the whole supply chain.

13. In what way is dealt with traceability of the cotton produced? Are people in the supply chain made aware of BCI?

14. I understood that an extra price is paid for the Better Cotton of one (and possibly more) of the farmers here in Jalna. Do you know why this is?

It is because of negation position, if the quality of the cotton is better the price is higher. It is a negotiation tool, if the market is good the farmers get a higher price. Farmers now also have the opportunity to go to the ginners directly not paying the middle men and get a higher price for their cotton in that way.

15. How is a selection made of farmers that can participate in the BCI project?

KVK approaches the farmers in the area if they want to join. It is not a hardline contract, farmers might join or not. There are innovative/progressive farmers in every project and the laggards do not want to come to training in the first year. But if they see interest of all ginners, spinners and other farmers and hear about price increase then also the laggards will come. Popularity of the BCI will make more farmers come, farm economics improves: less expenses to pesticide and farmers spend more attention to their crops, so maintain quality more than conventional farming.

Personal & experience

1. Currently you work at UTZ Certified as a product coordinator coffee, cocoa and tea. Could you briefly explain what this entails?

Cocoa, tea, coffee product coordinator within product management department. Before a B2B account manager to attract companies to cooperate with UTZ. Main activities concern keeping an overview of the products, how can we improve practices, also taking into account important stakeholders outside UTZ, within the supply chain. Douwe Egberts, Cargill, IDH, Oxfam Novib and cooperation with fairtrade, ISEEL. How do you cooperate with organisations such as Fairtrade, because that would seem like competition to me?

Not really cooperation in the true word of starting a project together, but cooperation in terms of the sector wide topics such as living wage, inclusiveness, gender issues. We just started in a partnership with Fairtrade in cocoa production. Memorandum of understanding, which means that UTZ certified farmers are required to live up to another set of fairtrade standards and therefore can be seen as UTZ as well as fairtrade farmer.

2. Why did you come to work for UTZ Certified, what do you particularly value from this organisation?

How does UTZ certified look at the future of traceability?

UTZ already has forms of fully traceable products, UTZ organic cocoa, is not mixed, and is fully traceable. There are for cocoa three traceability levels: IP (identity preserved, traces back to farmer – coffee good functioning. Most costly), segregation (still physical link to the UTZ certified, but no preservation of farmer identity), mass balance (one knows the amount of UTZ certified, but not that the coffee held is actual UTZ coffee. No consumer value). Credit trade

There is a trend towards more segregation and more identity preserved in the long term.

UTZ certified & Multi-stakeholder initiatives

The thesis I am working studies the legitimacy and effectiveness of multi-stakeholder initiatives such as the BCI.

3. How does the UTZ certified programme work for coffee for instance, in a nutshell?

There are several parties necessary to start a certification programme, first of all you need farmers that wish to become certified. To start the certification programme you need organisations on the ground that implement the programme with the farmers. Then you need to select an auditing system: your own auditing system, like Fairtrade, third party auditors, peer-review, self-assessment. Another system is a verification system, which has lower standards and is less costly. There is a statement of all these different parties and certification systems that they wish to not compete or work against each other, they rather create a larger % certified products than fight each other.

A comparison can be made between UTZ and an initiative like the BCI because also UTZ was initiated by the industry, Ahold stood out to define another 'fairtrade' label next to Fairtrade and after introduction of the programme stepped out and let UTZ work on its own. One of the convictions of UTZ is also that the move towards sustainable products is demand-driven. If there is no demand for sustainable products

UTZ will not aim to convert all farmers to sustainable practices. The consumer currently still values price mostly, so to create demand also on the consumer side, UTZ works together with the industry to develop this sector. Some people might say that it is harmful that UTZ allows pesticide, while for instance organic does not. But one needs to keep the scope of the projects in view. UTZ does not claim to be perfect, it wishes to develop better farming. On a larger impact than organic can be, because the price of organic is too high, the consumer is not willing to pay this.

- UTZ wants to improve itself every year, like BCI. How does this work?

We work with the ISEEL system which means that we have to revise the programme every 5 years. A process that takes 2-3 years which is very open to all stakeholder in the production sector but also subject to two times open consultation. For instance in the recently presented code there is an explicit note on climate change. Earlier codes did name climate change indirectly, but now there are active strategies to combat and mitigate effects of climate change.

4. UTZ certified has been involved with these multi-stakeholder initiatives as traceability servicer for BCI and RSPO. How are these experiences of UTZ certified when working together with these organisations?
5. How does UTZ certified differ in its certification process from organisations such as BCI?

There is a big difference between an impact assessment and auditing. Impact assessment costs much more time and money and is often executed by a research center or for instance a student like you. This organisation takes measure of various elements of the programme that were not incorporated by auditing systems, like soil quality, etc.

What is suitable in one region might be completely different in another. Coffee production in Brazil is totally different from coffee production in Africa. There are different methods, different people, different issues, different market structures. Vietnam coffee production is much more efficient and advanced than Africa, while Vietnam is much newer, but started with more advanced techniques. Let alone different climatic, soil and water conditions.

The purpose of auditing and impact assessment is not the same. The purpose of auditing is to look at compliance of the farmers to a set of requirements. You are either conform or not conform the UTZ requirements, then you get the certificate or not. While the impact assessment is too understand whether the requirements posed to the farmers make sense, whether they meet their goals.

A difficulty in doing impact assessment of UTZ practices is that farmers are often also engaged in other certification processes, so the question is which improvement should be attributed to which programme.

UTZ is programme and a label. Programme to define sustainable certification.

Biggest difference between UTZ and RSPO is that all stakehodlers of the industry are at the table, while UTZ is a organisation that works together with the industry, but is not 'gested' or directed by the industry. In the UTZ statutes it is defined that we need to incorporate the opinion of the industry in important decisions.

UTZ sits in at RSPO meetings to have influence in decision by taking part in discussions, however it does not have any decision power and does not have the ambition to start any label for palm oil. Most importantly because RSPO is the largest and sustainable palm oil production programme, so it already exists.

UTZ also worked together with BCI as a traceability partner and by sit-in during BCI discussions. Why UTZ decided to step out is confidential information.

What are the advantages and disadvantages of continuous improvement systems?

Advantages are that we live in a dynamic world and that we can, by this continuous improvement respond to changes in a flexible manner. You can always stay in the form that is up to date with the demand on the market.

A disadvantage is that it takes a lot of time and money. Continuously adapting the system is much more time and money intensive than determining a number and reaching that number. Difficult to determine what the status of problems is, demands lots of work hours.

- Is the trade-off between soil salinity and water scarcity an issue within UTZ?

No.

Difference between UTZ and an organisation like the BCI (not on behalf of UTZ) possibly is that UTZ goes for quality only and that the industry partners of the BCI do have the intention to make things better. But often also participate to improve their image.