Assessing sustainability

A Closer Look at Sustainable Development in Organic Cotton Farming using Key Performance Indicators.

This report provides an analysis of the environmental, social and economic perspectives of organic cotton farmers in Latin America, Africa and India, using the Organic Exchange ‘KPIs’/Farmer assessment tool.
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Executive summary

Organic Exchange’s Key Performance Indicators\(^1\) (KPIs) have been used over the past 18 months by OE’s regional directors to help organic cotton farmers understand, reflect and act on key issues for their ‘sustainable development’. To this end, the *programme* has focussed on farmer self-assessment however; the resulting ‘scorecard’ also helps producer groups communicate what the main issues are for the long term environmental, social and economic sustainable development of organic cotton growing and potentially to hold conversations about these issues with brands, buyers and other interested stakeholders. A growing number of producer groups in Africa, Latin America and India are using ‘self-assessment’ in this way and implementing their own improvement programmes based on their scorecard results; this is where the true value lies. This report offers a ‘bird’s eye view’ of the scorecard ‘results’ and explores the collective environmental, social and economic perceptions made by organic cotton farmers in the three regions.

What we have learnt from taking a collective look at farmer scorecards:\(^2\)

- Organic cotton farmers generally felt positive about their ability to farm effectively and tended to score themselves well in the agronomic indicators.
- Organic cotton farmers tend to be able to provide for their families food and nutritional needs (however there are challenges here for some). Positive scores align with the positive benefits of organic farming systems (since a variety of food crops are grown as part of the organic cotton system). The picture is complex however since an increase in Indian government spending last year improved the situation for some Indian villages.
- There is evidence of social development – particularly by African farmer groups, *perhaps* indicating that organic cotton farmers are more collaborative and able to invest in their communities. It is important also to appreciate the contribution that ‘fairtrade’ certification makes to social development in terms of decision-making and conditions of investment.
- Indicators of education for children painted a mixed picture; with good examples of schooling and promoting an education for girls but not everywhere.
- All regions are experiencing some challenges with natural resources; water, energy and preservation of biodiversity are on the radar for many farm groups. These issues will be rooted in geographic and economic conditions of the regions and certainly not just issues facing organic cotton farmers.
- The low scores for ‘investment in health’ – particularly ‘workers health’ tend to reflect weak infrastructure and poor public investment in policy in these regions – rather than a situation unique to organic cotton farmers.
- Whilst ‘income’ is not presented as a consistently low scoring area; economic development is by far the most ‘problematic’ area for organic cotton farmers. Scores here flag up real issues around farmers’ perception of their ability to invest in their businesses; evidence that growing organic is not currently acting as the panacea for improved incomes for all.

\(^1\) The change from ‘Key Performance Indicators’ to ‘farmer assessment tool’ reflects more accurately the way the KPIs have been used in the field to date. OE is currently developing a smaller set of ‘KPIs’ for the future reporting of sustainable development in organic cotton growing.

\(^2\) Please see the caveat to interpreting data in the ‘health check’ on page 10.
Introduction

Organic Exchange has developed a sustainability assessment tool, which uses a Key Performance Indicator scorecard. The tool helps farmers explore key issues for the long term environmental, social and economic sustainability of organic cotton farming. The assessment tool (sometimes referred to as ‘KPIs’) was trialled in 2007-08 in Senegal and Turkey and minor alterations to the scorecards were made as a result. In 2008-09, 64 farm groups used the tool to run assessment exercises. All assessments were carried out in the regions where OE has a presence: Africa, Latin America and India. The majority of groups were undertaking their first assessment, however a number of farm groups in India have ‘reassessed’ during this period.

Techniques and methodologies for carrying out assessments are based on participatory learning and action (PLA, see page 8). A training manual and guidelines have been produced to help facilitators appropriately manage assessment meetings. The guidelines were developed to provide general standards of conduct and to help ensure a degree of consistency in approaches. Since, understandably, approaches to assessment meetings will be partly influenced by the dynamics of the group.

This report provides an analysis of the environmental, social and economic perspectives of organic cotton farmers in Latin America, Africa and India, using the results of each group’s scorecard and some anecdotal feedback.
Farmer self-assessment programme: The concept

While an organic certificate guarantees certain things, it is not a holistic sustainability indicator, especially in areas of social and economic impacts but also in wider environmental issues such as soil fertility, water consumption and climate change.

With growth in organic cotton production and demand, it is becoming increasingly necessary to look at ways to monitor and verify the real impacts of organic cotton production on farmers, their families, communities and the environment - against the claimed impacts as well as in the face of wider sustainability questions, about for example climate change and water use.

Organic Exchange has developed an assessment scorecard to help farmers (and brands) monitor a farm group’s progress against a number of indicators and understand the impacts of their production. An important component for farmers is that the system allows them to show their strengths and value in the marketplace and their distinctiveness as businesses and share their perspectives with OE, and the companies that they do business with.

The assessment process allows:

- Farmers, field agents, project staff, community members and others to self-assess their progress as organic cotton farmers.
- Farmers and buyers to discuss on reported indicators.
- Organic Exchange to select key indicators for global tracking and reporting, for example on areas such as water use, price and income trends, etc.
- Periodic auditing and checking by OE to make comparisons or identify distortions and to keep the system 'true' without generating high costs.
- Tracking of emerging issues and corrections necessary to maintain the sustainability and integrity of organic cotton.

The self-assessment scorecards are designed to:

- Be a tool to monitor progress, problems and interventions required in organic cotton farms and projects.
- Be a way to add oversight on social and economic performance as well as specific environmental interventions.
- Increase transparency.
- Increase farmer visibility.
- Improve monitoring and understanding of performance and issues.
- Generate communication materials and tools for retailers and brands as well as farm groups and businesses.

Important criteria in design were:

- To minimise financial burden on farmers as far as possible; certification systems are already expensive, and we are not offering another certificate with this programme—hence the use of self-assessment and the use of existing administration systems such as Internal Control Systems for data recording.
- To open dialogue between farmers, their project organisers and the supply chain on desirable short, medium and long term outcomes.
- To highlight areas of high performance as tools to communicate the benefits of organic cotton to consumers, while at the same time highlighting areas for investment.

Further tools developed to support the process:

1. A field guide for farmers and project staff
2. A guide for brands on implementation and using and reporting the data
3. A smaller set of indicators to track and report sustainable development in organic cotton production.

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3 This section (pages 5-7) is summarised from the ‘Facilitated Farmer Participatory Self-Assessment Training Guidelines, version 2009’ by Simon Ferrigno, Director FDP Team.
Methodology

- The data is collected in semi-formal discussion groups with farmers and other parties based on indicators selected from each heading of the Organic Exchange scorecard, (see next section for details) using criteria for scoring in each case. In the absence of a baseline, 3 is used as an average score, 1 or 2 to point to areas needing action, 4 or 5 where interventions or results are already good or strong.

- Ideally, the assessments are done annually in a group setting at a convenient time – such as when harvested cotton is delivered by farmers for transport to the gin, allowing the data to be integrated along with certificates into bales output from the gin – and the following of this information through the supply chain to batches of garments.

- While an individual item cannot in each case be attributed to a given farmer, a batch can be linked to a group or groups of farmers (in each Internal Control Group) and each batch thus linked to a set of indicators; these indicators and associated photographs, videos and stories can be communicated in the marketplace.

- The annual assessment is also the time for farmers and other stakeholders to review and report progress on action plans and propose new areas for action.

- These can form the basis for the development of strategic partnerships between the farmers, the buyers and external parties such as donors, NGOs and local government – and even allow for ways to let consumers participate for example in supporting community health or education plans by additional financial contributions beyond their textiles purchases.

- Data is ideally collected in groups based on the Internal Control System for certification. Each group within the ICS for certification is a ‘data centre’ and ensures a homogenous group who know each other and already relate as a group and with the projects own staff. This ensures cohesion.

- The design of the indicators draws on existing literature as well as the field experience of programme staff in various contexts and locations. The team comprises staff with experience in areas such as Business, Gender, Agronomics, Rural Development, Health Monitoring and Social Science, which was invaluable in this design.
The scorecards

Below are the 6 key themes developed by Organic Exchange that make up the scorecard. Within each theme there are 5-7 indicators. For each indicator the group rank themselves between 1 and 5. See Appendix A for details of rankings. It is important to note that the rankings made by the group are based on a group perception of themselves; their strengths and weaknesses. The majority of indicators are qualitative and designed to enable the group to explore their understanding of the issue and perception of status. This process draws on the PLA technique (participatory learning and action) which involves the full participation of people in the processes of learning about their needs and opportunities, and in the action required to address them. It is the job of the facilitator to encourage and lightly direct the group to look deeply at each issue and arrive at a mutually agreed ‘ranking’.

Theme 1: Environment

This covers environmental management issues including water, energy and wastes management, agro-ecosystem issues and biodiversity protection.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Water use, management, irrigation, harvesting, access and conservation.</td>
</tr>
<tr>
<td>Energy</td>
<td>Energy use, access to energy, alternatives to fossil fuel, biofuels, animal labour etc.</td>
</tr>
<tr>
<td>Recycling, re-use and repair</td>
<td>Non-crop farm waste, recycling, re-use, repair.</td>
</tr>
<tr>
<td>Trees, borders, crops, refuges, agro-ecosystem</td>
<td>Biodiversity, trees, water and soil management, carbon management.</td>
</tr>
<tr>
<td>Biodiversity protection, management and use</td>
<td>Understanding of the role and importance of biodiversity (birds, pollinators, biological control, etc).</td>
</tr>
</tbody>
</table>

Theme 2: Agronomics

This covers agronomic processes and practices including soil fertility management and biological controls.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil fertility and recycling of organic matter</td>
<td>Different types of manure, use of natural manures, limitations and risks regarding diseases, willingness to experiment, Green Manures, Understanding of soil fertility, levels of livestock.</td>
</tr>
<tr>
<td>Biodiversity management and use of biological controls</td>
<td>Use of natural, on farm ingredients to manage pests and diseases.</td>
</tr>
<tr>
<td>Risk management</td>
<td>Risk of contamination, chemicals, GM cotton, cross-pollination.</td>
</tr>
<tr>
<td>Use of inputs</td>
<td>Self-sufficiency in the use of on farm inputs, dependency on external botanical inputs.</td>
</tr>
<tr>
<td>Crop diversity</td>
<td>Diversity of crops and biodiversity.</td>
</tr>
</tbody>
</table>

4 For more information on PLA visit [http://portals.wi.wur.nl/ppme/?Appreciative_Participatory_Planning_and_Action](http://portals.wi.wur.nl/ppme/?Appreciative_Participatory_Planning_and_Action)

5 In Appendix A each key area and ranking criterion from 1 to 5 is provided.
### Theme 3: Social development
This covers aspects of social development including labour use, gender equality as well as access to services, housing and sanitation.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workers</strong></td>
<td>Casual labour, part time, full time, seasonal, contracted, family (paid, unpaid), female. Legislation, employment terms, wages, local norms.</td>
</tr>
<tr>
<td><strong>Children and labour</strong></td>
<td>Children from family, community or outside. On or off the farm. Bonded labour.</td>
</tr>
<tr>
<td><strong>Changes in labour use and patterns</strong></td>
<td>Changes in labour use and patterns. Paid workers. Family labour.</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>Equity between the sexes, decision making, share of proceeds of work, distribution of roles, access to income, land tenure and ownership.</td>
</tr>
<tr>
<td><strong>Decision making</strong></td>
<td>Decision making within and between group and partners and buyers, fairness, transparency, equity, openness and democracy.</td>
</tr>
<tr>
<td><strong>Income and investment and distribution</strong></td>
<td>Distribution of income, investment of profits, value chain, decisions on income.</td>
</tr>
<tr>
<td><strong>Net income (family)</strong></td>
<td>Trends in income.</td>
</tr>
<tr>
<td><strong>Access to services and infrastructure</strong></td>
<td>Access to services such as communications (phones, mobile phones, internet, newspapers) and roads.</td>
</tr>
<tr>
<td><strong>Housing and sanitation</strong></td>
<td>Type and quality of housing available, access to sanitation.</td>
</tr>
</tbody>
</table>

### Theme 4: Economic development
This covers aspects of economic development including structures, price setting, investment and ownership.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Farm project/group structure</strong></td>
<td>Type of project structure, e.g., contract farming or cooperative, delivery of benefits and security of market; type and duration of contract, sharing of risks and rewards.</td>
</tr>
<tr>
<td><strong>Price and price setting and cost sharing</strong></td>
<td>Price setting, negotiation, cost allocation etc.</td>
</tr>
<tr>
<td><strong>Investment in and ownership of primary processing</strong></td>
<td>Investment in primary processing. Benefits from additional or more secure incomes and markets.</td>
</tr>
<tr>
<td><strong>Ownership of certification and trade</strong></td>
<td>Ownership of and access to benefits of certification.</td>
</tr>
<tr>
<td><strong>Investment in diversification</strong></td>
<td>Investment in diversifying markets and buyers. Benefits from additional or more secure incomes and markets.</td>
</tr>
<tr>
<td><strong>Investment in community and social development</strong></td>
<td>Investment by farmers, producer groups, partners in community and social development. Organisational and capacity building, infrastructure development etc.</td>
</tr>
</tbody>
</table>

### Theme 5: Health and education
This covers access to and investment in health and education.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to health care</strong></td>
<td>Availability and ease of access to primary and maternal health care.</td>
</tr>
<tr>
<td><strong>Investment (health)</strong></td>
<td>Investments by farmers, producer groups, project conveners or partners to fill gaps or opportunities to encourage or lobby for investment by third parties or governments.</td>
</tr>
</tbody>
</table>
Education access (primary) | Access to primary education for all their children, affordability.
Education (girls) | Active promotion of girls’ access to primary education.
Farmer and worker health | Monitor and improve farmer and worker health, tracking changes through the development of organic farming.

### Theme 6: Food security

This covers levels of food security and nutritional status.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family is food secure (income and own production)</td>
<td>Degree of food security, role of organic cotton.</td>
</tr>
<tr>
<td>Community food secure</td>
<td>As above, but for community including workers.</td>
</tr>
<tr>
<td>Food security from own production (%)</td>
<td>Proportion of food security from farmers' own production, dependency on external purchases (food, luxuries, additions).</td>
</tr>
<tr>
<td>Amount spent on topping up food security</td>
<td>As a % of net income or in monetary value.</td>
</tr>
<tr>
<td>Adult nutritional status</td>
<td>Nutritional status (poor, adequate, good, very good, excellent).</td>
</tr>
<tr>
<td>Under 15s nutritional status</td>
<td>Nutritional status (poor, adequate, good, very good, excellent).</td>
</tr>
</tbody>
</table>

### How we have reported on the scorecards

Each scorecard is confidential to the producer group. OE will not disclose scorecard results without the permission of the group; it is up to the producer group to decide how they wish to use, and share, their results. In this Report, we have provided a regional summary of the scorecards to give a general ‘flavour’ of the ‘results’ without exposing specific farmer groups. A high-level comparison of the regions has also been carried out. (See Appendix A for a closer look at the ‘1-5’ ranking system).

### How the scorecards fit with ‘Farmer visibility’

Organic Exchange hosts a ‘farmer visibility’ platform on its website\(^6\) using software developed by Historic Futures.\(^7\) The platform allows organic cotton growers to promote their businesses and products globally. If the producer group desires the system can incorporate farmer self-assessment data, as well as production data, information about other crops produced on the farm, and photos, videos, audio and text files, opening the doors for buyers to have a much clearer idea of what is happening at the farm level and who is producing the fibre they use\(^8\).

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\(^6\) To explore the farmer visibility map go to [http://organicexchange.org/oecms/farmermap.html](http://organicexchange.org/oecms/farmermap.html)

\(^7\) Visit [http://www.historicfutures.com/](http://www.historicfutures.com/) to find out more about Historic Futures and supply-chain traceability.

\(^8\) ‘OE Key Performance Indicators Update and Report, March 2008’ by Simon Ferrigno,
Assessment scorecard analysis – Health check

Before reading the results section it is important to understand the context in which the data sits and the limitations of this examination.

1. The most important point to clarify is the primary intention of the tool: facilitated self-assessment, designed to stimulate reflective learning with in small semi-structured group settings. The goal is for the group to take forward any learning and agreed actions autonomously, revisit the scorecard (or specific areas for deeper focus) and gauge ‘improvements’.

2. This report is a ‘bird’s eye view’ it is not a detailed examination of all 64 self assessments.

3. The scorecards are not designed to collect ‘hard’ evidence of activity or monitor improvements quantitatively; therefore results are subjective and of most use to the individual groups.

4. Since ‘results’ are based on farmer perception, reflection and a group of consensus; any comparison drawn between farm groups or regions in this report is influenced or limited by the primary intention of the assessment exercises.

5. In addition to the point above, the number of farm groups that have been involved in the self-assessment programme so far is relatively low, thus the size of the sample we are drawing assumptions from should also be taken into account. It is impossible to use the results as an indicator of the region or state-of-play in any truly meaningful way.

6. The three regions reported here used very different methodologies for running the assessment exercise and collecting information (see page 13). This use of different methodologies also makes cross region analysis very conditional. So whilst we have included a high-level look at how the regions compare against each other, the variations in techniques will affect outcomes and once again comparisons must be interpreted with this in mind.

7. The environmental and socio-economic situations experienced by organic cotton farmers are set in the context of the region the farms are based - so for some indicators such as access to water and energy, access to health services, investment in businesses, health and education there is going to be a degree to which these issues are entrenched in the country and society the farmers are based – and may not be a specific reflection on the farm group or even organic cotton farming.

8. We do not have corresponding data – or indeed any way of comparing these findings with the ‘norm’ or other groups such as conventional cotton growers or other methods of ‘sustainable’ farming. Therefore it is impossible to say whether the scorecards reported here are comparative with other ‘groups’ such as other agricultural sectors, or whether they are better (or worse).
Top line results

Taking the above health check into account we have attempted to outline some assumptions and tentative results in this report. Remember, techniques varied across regions; Africa’s scorecards were facilitated by the OE Regional Director and in most cases involved 7-12 farmers from each group’s ICS (Internal Control System). Latin America’s data is collected in 3 steps. First, an assessment is carried out by the OE Regional Director, step 2 involves an assessment by the Farm/Project Leader (in discussion with the OE Regional Directors) and step 3 is a group based facilitated response. For India data collection was carried out by a consultant at the village level.

- A number of farm groups from all three regions showed strengths in areas of ‘sustainable development’ – particularly for agronomic practices. This means there are opportunities for OE to understand better, and share, what constitutes a thriving farm group and for other groups to learn from the strong scorers.

- There were no alarmingly low scores for the indicators of food security and nutrition. This could reveal something about the positive benefit of organic farming systems i.e. diversification in crops grown and opportunities to vary the family diet. (Without a direct comparison against conventional farming this remains an ‘interesting assumption’ but fits with other reports on the benefits of organic agriculture such as the United Nations report on Organic Agriculture and Food Security in Africa).

- Farmers generally felt positive about their ability to farm effectively and tended to score well in the agronomic indicators. Once again, it might be possible to attribute strong scores to the method of organic farming. Good biodiversity and soil fertility and low (or no) risks from chemical contamination etc probably put organic farming at a significant advantage in this scorecard – especially for a small-scale farmer in a developing country where access to external inputs are generally more difficult and relatively expensive than in more developed countries.

- All regions are experiencing some environmental challenges. There is significant concern about the use of natural resources such as water and energy, especially in Peru. These issues will without doubt relate to geographic and economic conditions generally and be experienced by other communities’ as well i.e. not just organic cotton farmers.

- Social development was reported positively by some groups e.g. for indicators of labour practices, decision-making and income distribution; perhaps indicating that organic cotton farmers are generally inclined to work closely together and be interested in the wellbeing of their community.

- However, access to health and education is, perhaps not surprisingly, an area of concern. The low scores for ‘investment in health’ typically reflect low levels of infrastructure and public investment in these countries – rather than be indicative of unique issues for organic cotton farmers.

- Economic development is probably the biggest concern for organic cotton farmers; especially when it comes to ownership and investment in primary processing, certification, trade and crop diversification. Once again will in-part be deeply rooted in broader economic problems associated with life in developing countries.

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9 This statement must be read with caution and not assumed to be conclusive.
## Approaches to assessments

During the past year 64 groups (a mix of farm groups and village level farming communities) took part in self-assessment exercises; in Africa 18\(^\text{11}\), in Latin America 12\(^\text{12}\) and in India 34\(^\text{13}\). Each region developed its own particular style of information gathering.

Figure 1 highlights the different approaches between the regions – and gives a summary of the pros and cons for each.

**Figure 1: Approaches to farmer assessments**

<table>
<thead>
<tr>
<th>Country</th>
<th>Approach / Involvement</th>
<th>Size of group</th>
<th>Assessment led by</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| Africa  | Farm group/ICS staff   | 7-12          | OE facilitated   | Farmer self-assessment.  
Opportunity for participatory learning and reflection.  
Results are farmer ‘owned’ and likely to lead to action planning.  
Using a pre-existing group (ICS) that meet for other reasons – improving likelihood of follow up. | Reliance on farmer perception and ability of facilitator to encourage honest examination.  
No comparison with ‘independent’ review. |
| Latin America | OE staff (step 1)  
Farm Leader (2)  
Farmer group (3) | 1  
2  
10 | OE facilitated | Opportunity to reveal contrasts in group perceptions and that of the OE staff and Project leader.  
Good way of making progress with assessment exercises when farm group buy-in is low.  
Pre-prepared rankings to begin discussions. | More time consuming.  
Only at step 3 do we see a view-point made by a representative group of farmers.  
Difficult to get a ‘feel’ for the benefits of the programme in Latin America – until a good number of Step 3 assessments have been completed. |
| India   | Farmer/village         | 12-25         | Consultant facilitated | Efficient time-scaling (depending on requirements and scope of consultants remit).  
‘Packaging’ of assessment exercises, analysis and report of results.  
Opportunity to roll out programme (outside of OE) and in theory increase impact of programme. | Consultants may be strangers to the farm groups and may not gain the trust of the farmers involved.  
Depending on scope etc, the consultants remit may differ from the ‘intentions’ of the OE programme. |

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\(^{11}\) Meetings are usually conducted at a village level or sub-group and often composed of farmers with ICS responsibilities.

\(^{12}\) In Latin America the majority of assessments have been conducted at ‘Step 1’ level i.e. by OE Regional Director. See page 15, topline results for more detail of the Latin American approach.

\(^{13}\) The consultant working in India has collected some farm system/rotation crop data but in a different format, limiting inclusion in this report.
Regional results
This section gives a bird’s eye view of the assessment scorecard for each region. 2008-09 was the first year of full implementation (2007-08 was a pilot year). In this past year each region managed the assessment process differently. Lessons learnt from the different approaches will help shape the programme going forward. For Africa, we have considerable quantitative and qualitative information which allows us to get a good feel for how the groups perceive their practices to be across the environmental, social and economic realm of their farming lives. For Africa we have a number of quotes which help tell the farmer’s ‘stories’. For Latin America we predominantly have the results of the assessments made by the OE Regional Director – step 1 of a 3 step approach. Whilst this approach is more time consuming there is an excellent opportunity to compare ‘perceptions’. In India, meetings were held in villages and run by an Indian consultancy; the OE Regional Director playing a role of supervisor and adviser to the consultants. The consultants tended to ‘customise’ the scorecards (by adding more detail). Whilst these amendments may have made it better suited to the process for India, it made it difficult for comparison with the other two regions.

Africa
Assessments in Africa were conducted at a farm community level, typically involving 7-15 farmers – usually represented by members of the producer group’s ICS (Internal Control System) team. Groups were facilitated by the OE Regional Director for Africa or OE’s Farm Development Director.

Dr. Silvere Tovignan, OE regional Director for Africa commented that the data collection process cannot be rushed:
"Farmers seem perplexed at the beginning of sessions, as the exercises go on and their understanding gets improved, they become enthusiastic. That is why one cannot rush and skip the understanding part of the exercise. Some groups over estimate their performance and others underestimate it. The facilitators have to moderate different opinions in order to bring farmers to the right judgment. Sometimes, the right judgment can be a consensus.

None of farmers’ groups found the exercise useless; they even claimed that it was one of exercises that opened their eyes. Some of them confessed that their motivation about organic farming was limited to farming practices, health and income. They never thought that organic can imply energy, recycling, housing and sanitation... This shows that KPIs can also be understood as training occasion.

One important difficulty in running KPIs is related to finding the right words to translate concepts in local languages. Concepts like climate change, energy, recycling... do not exist as such in many languages spoken in West Africa. One needs to find good examples or local images to make such concepts clear in farmers’ minds. One important recommendation is that, strengthening impacts in a sustainable way implies that the farmers’ group organization needs to be improved to take impacts to further edges.

As regards to further stage of KPI exercises, it is supposed that field officers will include KPI in the ICS protocol as a non compulsory activity, this can be on demand of farmers’ groups. That is why most of field officers in West Africa have been trained on how to run a KPI exercise efficiently.”
The general picture for Africa is positive, with agronomic practices perceived to be well understood and competently carried out by most farm groups. There were many groups that scored themselves at ‘5’ for agronomics, social development, health and education and food security. Africa could potentially hold a strong and positive message for many elements of sustainable cotton farming.

African producer groups involved in the programme so far are mostly based in West Africa. Further, in most cases, producer groups are assessed at a ‘farm’ or ‘village’ level and represented by ICS members. The number of farmers at this level is usually less than 30 (with a couple of exceptions). All PGs were formed post-2000. Farmers tend to grow some non organic cotton along with the organic. The majority of farms are certified fair-trade as well.

Environment/agronomics: Comments from African farmers suggest that water is often scarce or at least difficult to get to due to distance from farms; and water conservation practices are not well understood. Firewood, petrol and dung are used for cooking fuel. Some farmers buy-in animal dung. There is a need to improve understanding of alternative energy sources – however solar energy is acknowledged as holding good investment opportunities. Size of each farmer’s plot may restrict biodiversity and the commercial growing of other trees although where Shea trees are present they are not disturbed. There is good use of natural fertilisers such as animal dung (although this is also used as a cooking fuel). The farmers are particularly aware of the importance of biological control and maintaining numbers of beneficial insects. There is a general dislike of GMO crops and some concern over boundaries between their farms and those that farm with GMO (where this occurs).

“Trees provide shadow and can be habitat for birds and useful insects.” Gnoumake, Burkina Faso

Group has very good understanding about practices like: green manure, crop residues, legumes, rotation, tchotchokpo... Group says: "our merit is 5, but we cannot give 5, because one never ends learning." OBEPAB - Yobodo Aklampa, Benin

“Crop diversity - reduce risk of bad season, you have at least some thing, and reduce production costs.” Bounouko Yanfolila, Mali

“We have to protect trees, trees are regressing. We cut trees for charcoal, we have to cut we need money.” OBEPAB - Goussigon/GVPCB, Benin

“As farming method, we make live fencing with Jatropha and strong edges to retain water in the plot and limit run off.” Kankounaba, Burkina Faso

“They are some problems is the village due to GMO. Due to insufficient buffer zones, some organic farmers have to abandon their farm.” Kankounaba, Burkina Faso
Social and economic development: In Africa, casual and part time labour is used by the farm groups when they can afford it or have specific tasks that require more hands. Sometimes ‘family labour’ is called upon or ‘self-help’ labour is offered from the village. Often there might not be government standards, a minimum wage or health insurance yet contracted labour is seen as expensive. Sometimes there is delay in payment with a number of groups explaining that pay usually comes after the cotton has been sold. Children are likely to be seen on farms but usually outside of school time. A child’s ‘job’ will be light. There is a general expectation that children go to school. Women generally have access to the land and participate in farming. In many cases land is given by the husband to the wife. Yanfolila in Mali has a woman president. Decision making is mostly democratic – some groups have both a general assembly and a board. Typically, the association manages the group income and distributes payment to farmers. How to use premiums is reported to be a democratic process. Family incomes were reported to be increasing – partly due to crop diversification or reported an expectation that incomes would improve.

“We use part time paid labour and pay after selling the cotton.” Allassoni, Burkina Faso

“There is no government minimum for the agricultural seasonal labour force. Paid labour is expensive, can reach 2000F per day.” Kousanar (ENDA Pronat), Senegal

“Children work is like a training process, we do not force them; a kind of apprenticeship.” OBEPAB - Goussigon/GVPCB, Benin

“Children go to farm but do not do difficult jobs, they frighten away bird and animals from the farm for example”. Bounouko Yanfolila, Mali

“Children can go to farm, but not during school time.” Yanfolila, Mali

“Women are free, they have access to land.” OBEPAB - Lohoue lohoue djiklampa, Benin

“Women can work on separate plot give by husband.” Allassoni, Burkina Faso

Field agent holding ‘practice after theory’ KPI training in Banfora, Burkina (Source: Silvère Tovignan)

Local market sales – Africa (Source: Simon Ferrigno)
Some farmer groups reported a decrease in income but this was due to a drop in yields due to rain. One group reported incomes as being ‘insufficient’. A high priority is given to having a mobile phone and a motorbike and many farmer groups reported having access to these as a result of income from organic farming. The biggest problem is the state of the roads. Housing and sanitation is often shared between a number of families. Group structures are reported to be improving with ‘organic’ through ICS and for some through fair-trade. There was however a general lack of understanding or participation in price setting. Most farmers reported that these decisions are made by their NGO partners, the Cotton Board or the Farm Group management. Investment/premiums set aside for community development has gone towards warehouses or towards extending the size of the school. Often the contribution is said to be through fair-trade premiums (i.e. not only organic). Investment in diversification and primary processing is generally said to be something that is important and there is some investment in the primary processing of shea, sesame, fonio, and maize – plus some investment in donkeys and small ruminant animals.

“We are stranger here. We use give part of the land it is given to their wives. Women themselves very reserved to participate. But we treat everybody as ourselves.”
Samanguela Yanfolila, Mali

“The Association protect farmers’ interest and each farmer gets paid for his production.”
OBEPAB – Mangassa, Benin

“Farmers are paid an organic premium. The decision of the use of fair trade premium is taken democratically.”
Kankounaba, Burkina Faso

“Some of farmers buy with their cotton income, motorcycle and mobile phone that ease transportation and communication.”
OBEPAB - Yobodoho Akampa, Benin

“We have access to mobile telephone network, but roads are bad.”
Wapignan, Burkina Faso

“More group structure, help gender to come together in public.”
Bounouko Yanfolila, Mali
**Health, education and food/nutritional security:** Access to health services are an issue for many in Africa. Distances are considerable and there is generally no free service. Many farm groups have put ‘strategies’ in place to cope such as use of traditional medicine, farmer association loaning money to its members, and the availability of a motorbike or animal traction on hand. There are some reports of maternity services in range. The closest health centre reported is 8km away. Some farm groups have ambitions to build a small centre and arrange for doctors to visit and others say how they would benefit from funding to build a centre. In all cases there is an expectation that children go to school. The type of schooling ranges from a village centre to actual class rooms. There is some positive discrimination towards schooling for girls, and many groups reported having ‘sensitisation’ programmes in place. For some groups, the population of girls at school is greater than boys. Food security is generally good although there are some reports of having to buy in food. One farm group reported the need for social intervention to assist with improving adult nutrition. There were numerous comments made about the improvements organic farming has made to their food and nutritional security.

Figure 2 lists the themes and indicators of strength (scores of 5). The third column gives a brief description of what would be in place for a score of 5 (maximum). Columns 4 and 5 give the number of farm groups, and percentage that scored at this level. As the table illustrates agronomic practices and education (for girls) were strong areas for Africa generally.

![Table of themes and indicators of strength](image)

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“Health centre in Yanfolila, 10 km on tarmac road, we use more traditional medicine, before securing to health centre, but service not free”. **Bounouko Yanfolila, Mali**

“The cooperative lend money to members who need money for health problems. If workers are sick during farm activities, we bring them to health centre and take over costs.” **Sabou, Burkina Faso**

“We school in the village. We have a plan to make primary school free.” **Kankounaba, Burkina Faso**

“Since conversion, we have the three meals per day.” **Allassoni, Burkina Faso**

“Mainly cereals and grains are available from our own production.” **Sabou, Burkina Faso**

“We spend a lot of money in buying food.” **Yanfolila, Mali**

“We have always marketable surplus of maize, this income is mostly used for small expenses.” **Wapignan, Burkina Faso**

“Some years, food security has been challengeable, but not because of organic.” **Yanfolila, Mali**
Figure 3 shows the areas of greatest challenge (scores of 1). Investment in health and areas of economic development such as business expansion ranked low, as did participation in financial decisions. There is also little understanding of the environmental impacts of waste and practices to minimise waste through recycling etc.

Further support for this positive picture of strong scores, if we consider the average score across all African farm group scorecards (i.e. scorecard averages according to indicator) the following areas had an average ranking of 4 or above:

- Environment: 1. Trees, Border crops, Refuges, Agro-ecosystem... 2. Biodiversity protection
- Agronomics: 1. Soil fertility, 2. Use of inputs
- Economic Development: 1. Farm project/group structure
- Health and Education: 1. Primary schooling
- Food security and nutrition: 1. Family is food secure (income and own production), 2. Community is food secure, 3. Food security from own production

**Figure 3: Top areas of concern for Africa (from 18 groups)**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Indicator</th>
<th>Rank 1 – description (scoring guidance)</th>
<th>Frequency of lowest ranking</th>
<th>Percentage (%) of farm groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Education</td>
<td>Investment in health</td>
<td>No investment in health (generally)</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Price, price setting and cost sharing</td>
<td>Prices fixed by project, no negotiation of prices</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Investment in and ownership of primary processing</td>
<td>No investment in/ ownership of primary processing</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>Environment</td>
<td>Recycling, reuse and repair</td>
<td>No policy, little understanding</td>
<td>3</td>
<td>17</td>
</tr>
</tbody>
</table>

If we look at areas where the average score for farm groups in Africa was 2 or less the following were identified:

- Environment: 1. Energy
- Social Development: 1. Housing & sanitation
Latin America

For Latin America, we predominantly have the results of the assessments made by the OE Regional Director – step 1 of a 3 step approach. Whilst this approach is more time consuming there is an excellent opportunity to compare ‘perceptions’. This year we have 12 groups assessed by OE, 4 groups by Farm Leader (step 2) and 1 farm group which has been assessed through all 3-steps of the programme.

Alfonso Lizarra, OE Director, Latin America explains the thinking behind this approach and the general ‘response’ of the farm groups:

“The aim of deploying surveys and evaluations on indicators (KPIs) is to spread a new system of assessment and planning projects in organic production in Latin America. Due to the nature and profile of companies (farm groups) in the region, it was decided that the most suitable strategy for the implementation of the KPIs was to use a three stage process (OE Office in Latin America, farm leaders, and farmers).

Step 1: The evaluation is conducted by the Organic Exchange Regional Office; based on direct information from visits made during 2009, vital information from project leaders, and/or additional information from other sources. This step – to have an OE assessment first - was developed as a basic requirement before completing step 2 or 3.

Step 2: Introduce the KPI tool to the leaders / managers of projects. Project manager/leader carries out an assessment.

Step 3: Facilitated self-assessment by the farmers (the last phase can be performed directly or through the expertise of each project).

Results and comments

Thirty two farmer groups from organic cotton and agroecology in Latin America were identified (located in Peru, Paraguay, Brazil, Nicaragua and Argentina). These groups are at different levels: organic, organic transition and agroecological.

The scorecards with survey indicators (KPIs) are received by the companies in various ways. From the number of responses from the businesses contacted, it is assumed that most companies do not regard the KPI assessment programme as an important tool. This may be due to several factors: 1) its considered as a tool for problem identification, 2) it encourages farmers to identify gaps in their production systems and socioeconomic factors, and 3) it generates an expectation among farmers that are unlikely to facilitate the negotiation or handling of the relationship between enterprises and farmers’ groups. The development groups (NGOs, farmers or farmer associations) also did not respond especially well to the assessment programme. This could be due to: 1) lack of time, because these organizations often perform more than one activity, 2) lack of organization, limited technical equipment and poorly trained, 3) lack of interest in generating development actions by planning from the grass roots.

In general, the evaluation system for broad indicators is very interesting, because it evaluates various environmental, social and economic elements. KPIs are an excellent tool for identifying gaps and planning action. It is also clear that the situation for cotton and textiles is in a crisis by the collapse of the market. This has also affected the willingness of many technicians and project managers to get involved in these experiences in production and trade of organic cotton.”
From the scorecard rankings we can only get a general ‘feel’ for the environmental and socio-economic profile of organic cotton farmers in Latin America. It is also important to note that the majority of scorecards completed in Latin America in 2009 were from Peru (~70%). A much smaller number were from Brazil, Nicaragua and Paraguay. The size of the producer groups ranged from 12 farmers to just over 300; therefore relatively small. Aggregated farm sizes are mostly between 100 and 200 ha. In almost all cases conventional cotton is not produced at all – the cotton is all organic, with some fairtrade. Producer groups in Latin America are generally organised as ‘companies’.

Latin America’s scorecards produce a varied picture. Scores were polarised; with some groups scoring well and others scoring very low across the list of KPIs. Over time, a greater level of detail will be revealed as Latin America moves through the 3 steps of assessment. For now we can use the numeric results as a basic starting point.

**Environment/agronomics:** A number of organic cotton farmers, especially in Peru have concerns about environmental conditions; access to natural resources such as water and a low development of recycling/reuse programmes were raised. However some groups scored well across the agronomic indicators. Strong areas for some were risk management, use of farm inputs and crop diversity. However, these areas were also identified as problematic for others.

**Social and economic development:** Once again, a varied picture; with Brazil showing good results for social development but others a more mixed pattern. All groups displayed a struggle with investment and ownership of primary processing, certification and income diversification.

**Health, education and food/nutritional security:** ‘Access’ is not such an issue; in terms of access to primary school education and access to health care. But ‘investment’ in health (particularly farmer/workers’ health) scored low as was investment in education for girls. Food security and nutrition were neither presented as a serious problem but neither do they appear particularly stable. Food security from own production was not highly scored so it can be assumed that much of the family food supply is bought in.
Figure 4: Top areas of strength for Latin America (from 12 groups)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Indicator</th>
<th>Rank 5 – description (scoring guidance)</th>
<th>Frequency of highest ranking</th>
<th>Percentage (%) of farm groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agronomics</td>
<td>Use of inputs</td>
<td>Good understanding of self-reliance and no use of external inputs unless absolutely essential</td>
<td>3</td>
<td>25</td>
</tr>
<tr>
<td>Social Development</td>
<td>Gender</td>
<td>Women own land, have full say in its use, and use of proceeds and farm themselves*</td>
<td>4</td>
<td>33</td>
</tr>
</tbody>
</table>

Figure 4 lists the theme and indicator of strength (scores of 5). The third column gives a brief description of what would be in place for a score of 5. Columns 4 and 5 give the number of Latin American farm groups (and percentage) that scored at this level. As the table illustrates reducing external inputs and gender equality were the strongest areas for Latin America. Figure 5 lists the areas of greatest challenge. Investment in health and areas of economic development ranked low, as did managing farm-related risks. There is little understanding of the environmental impacts of waste and practices to minimise waste through recycling etc.

Figure 5: Top areas of concern for Latin America (from 12 groups)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Indicator</th>
<th>Rank 1 – description (scoring guidance)</th>
<th>Frequency of lowest ranking</th>
<th>Percentage (%) of farm groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Education</td>
<td>Farmer and worker health</td>
<td>No awareness or monitoring of farmer and worker health</td>
<td>9</td>
<td>75</td>
</tr>
<tr>
<td>Health and Education</td>
<td>Education (girls)</td>
<td>No specific awareness or promotion of education for girls</td>
<td>9</td>
<td>75</td>
</tr>
<tr>
<td>Health and Education</td>
<td>Investment in health</td>
<td>No investment in health (generally)</td>
<td>8</td>
<td>67</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Ownership of certification</td>
<td>Not farmer owned</td>
<td>6</td>
<td>50</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Investment in/ownership of primary processing</td>
<td>No investment in/ownership of primary processing</td>
<td>6</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: In addition, area where the average ranking across the groups was 2 or less:
- Environment: 1. Energy, Recycling
- Economic Development: 1. Investment in diversification, 2. Investment in community/social development
- Food security and nutrition: 1. Food security from own production, 2. Amount spent topping up on food
India
Assessments in India were carried out by a local consultant. Note that in the scorecard some of the indicators have been customised (or added) by the consultant which no doubt provides a more meaningful process for the communities involved but as a result scorecards do not match exactly to those used in the other regions i.e. environment, agronomics, social development and economic development.

For each producer group there are between 4 and 6 villages growing the cotton. It was at the village level that scorecards have been completed.

**Environment/agronomics:** Indian farmers are generally confident and competent in their agronomic techniques and despite some issues with biological control and gaps in vermicomposting, farming practices are reasonably well in hand. A number of farmers are concerned about the environment, in particular; water, energy conservation, soil fertility and biodiversity.

**Social and economic development:** For India, the scorecards reveal that economic development is a significant issue across all the participating farm groups. There was some evidence of good project structures and investment in the rural economy but overall the picture calls out for attention. Despite India’s emerging economy and much progress\(^1\) being made at some level by organic cotton growers to diversify crops, primary process and add value before sale at the farm gate, the results here suggest that not all farm groups (and villages) are benefiting from this investment. Lack of ‘say’ in decision-making and investment in business for individual farmers appears to be a significant issue for Indian organic cotton growers\(^2\).

**Health, education and food/nutritional security:** Once again, investment in health including farmer/worker health is an issue for many communities. The picture is generally better for investment in education at a primary level and education for girls is generally good. Food security ranges from a good level of security (with some good signs of contribution from own production) to insecure with signs of nutritional problems for both adults and children in some communities. Note, the Indian consultants reported a positive development in food security and nutritional status where the State had made increases in expenditure in these villages (see comments over page).

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\(^1\) As highlighted in other reports including OEs Baseline Report on Farm System Crops 2008

\(^2\) A reminder that no comparative work has been done to show the situation for conventional cotton growing farm groups.
The consultants who carried out the assessment work over 2 years commented on how scores had changed little over time:

“Overall there have not been too many changes of a lasting nature in the projects which were assessed in these two time periods.

The negative changes are mainly linked to the overall cotton economy and the confusion brought about by the sudden hike in Minimum Support Price.

The other negative change was observed in two projects was the increased risk of contamination from GM crops being grown close by.

The KPI scores increased primarily in the areas of where there have been interventions by the State welfare activity and by the projects as well. One of the positive developments has been interestingly in food security area and better nutritional status wherever there have been sudden increases in expenditures by the State in these villages.

The other areas where State interventions have made a change are in increase in communication infrastructure (new mobile towers & relaying of roads); new spend on education, social forestry projects and health.

The projects too have made a positive impact on these communities primarily by increasing awareness and training. Environmental concerns, water management and use of Bio techniques like manure preparation, use of green inputs etc in agronomy have been the primary areas of positive development. In a few areas some interventions in water conservation and education were also noted. Awareness of health and the need to educate children was also a positive development observed.

As noted earlier, it is too early to say if these KPI changes are lasting or not. The organic communities are very vulnerable and sensitive to even small changes; these have been reflected in the score changes. There is a need for strengthening where there have been positive changes and new interventions where the scores are low.”
Figure 6 lists the theme and indicator of strength (score of 5). Columns 4 and 5 give the number of farm groups (and percentage) that scored at this level. As the table illustrates, agronomic practices and areas of social development in terms of transport and communications were the strongest scoring areas for India. Figure 7 (over page) lists the areas of greatest challenge. Economic development in terms of investment in the farm business is the overriding area of concern – with 100% of farm groups (34 in the sample size) scoring a 1 for investment in or ownership of primary ‘other’ crop processing.

Note: In addition, areas where the average ranking across the Indian scorecards was 4 or above:
- Agronomics: 1. Recycling of materials (plant matter), 2. Inputs (botanical inputs, fuel, composts, manure, biofertilizers...)

16 Note these questions do not correspond with the African and Latin American scorecards.
17 No descriptor provided, therefore this column cannot be completed.
18 ‘Other’ refers to – ‘other than cotton’.
### Figure 7: Top areas of concern for India

<table>
<thead>
<tr>
<th>Theme</th>
<th>Indicator</th>
<th>Rank 1 – description (scoring guidance)</th>
<th>Frequency of lowest ranking</th>
<th>Percentage (%) of farm groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Development</td>
<td>No investment in/ownership of primary other crop processing</td>
<td>No description</td>
<td>34</td>
<td>100</td>
</tr>
<tr>
<td>Economic Development</td>
<td>No investment in rural economy/economic development</td>
<td>No description</td>
<td>22</td>
<td>65</td>
</tr>
<tr>
<td>Economic Development</td>
<td>No farmer investment in/ownership of primary cotton processing</td>
<td>No description</td>
<td>20</td>
<td>59</td>
</tr>
<tr>
<td>Economic Development</td>
<td>No ownership of trade</td>
<td>No description</td>
<td>20</td>
<td>59</td>
</tr>
<tr>
<td>Health and Education</td>
<td>Health - No investment</td>
<td>No description</td>
<td>20</td>
<td>59</td>
</tr>
<tr>
<td>Economic Development</td>
<td>No investment in community development</td>
<td>No description</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>Social Development</td>
<td>Worker salary policies</td>
<td>No description</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Health and Education</td>
<td>Worker health – no investment</td>
<td>No description</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>Social Development</td>
<td>Investment and redistribution of income</td>
<td>No description</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>Economic Development</td>
<td>Price*</td>
<td>Prices fixed by project, no negotiation of prices</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

Note: In addition, areas where the average ranking across the Indian scorecards was 2 or less:
- Social Development: Decision-making equality
- Food security and nutrition: 1. Food security from own production

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19 Note breakdown of KPIs were different/more varied than the standard OE scorecard used by Latin America and Africa.
Comparing results across regions

In this section we present a bird’s eye view and narrative based on comparing scorecard averages across the three regions. Comparing scorecard averages obviously has its limitations as does all analysis that uses ‘averages’ to reflect a spread of scores. Further complications exist here since scorecard data is generally based on a farm group’s perception of itself, and whilst reduced to a ‘number’ cannot truly be treated as quantitative data.

As is evident in figure 8 (below) most areas under assessment are hovering around a middle ranking of ‘3’ (see Appendix A for details of each ranking). Scores that jump out are the African farmers’ positive perception about their ability to farm effectively. It might be possible to attribute strong scores to the method of organic farming; since biodiversity, soil fertility and low risks from chemical contamination may put organic farming at a significant advantage – especially for a small-scale farmer in a developing country where access to protective equipment, machinery and equipment maintenance are generally more difficult than in more developed countries.

Latin America scored on or below the ‘baseline’ in terms of the environment, economic development and health/education. Individual scorecard results indicate that there is significant concern about the use of natural resources such as water and energy. These issues will not relate solely to organic cotton farmers but the state of the country generally. Scorecards also reveal that investment in economic autonomy and health is limited but once again an issue for many in developing countries. These low scores may more typically represent low levels of infrastructure and public investment in these regions – rather than be indicative of the farm groups’ unique experience.

Reasonably stable scores are recorded across all regions for social development e.g. labour practices, decision-making and income distribution, perhaps indicating that the higher scorers amongst the collective group are inclined to be in a position to prioritise the wellbeing of their community.

Economic development is probably the most contentious issue for organic cotton farmers particularly in India and Latin America. Low scores are mostly attributed to investment in businesses and decision-making opportunities. It is interesting to note that African organic cotton farmers perceived their degree of economic development to be relatively positive. One theory may be the contribution fairtrade premiums make (since many African organic cotton farmers are certified fair-trade as well as organic) and/or the added security NGOs provide to the producer group they partner.
Closer look at results
The following graphs show the breakdown of each of the six themes into the averages for each region. This provides an indication of the strengths and weaknesses for each KPI. Note; ‘2.5’ is considered the baseline and ‘5’ the maximum score. (See appendix A for details of rankings 1-5).

Environment Management
Water, energy and waste management hold issues for many farmers in terms of access to natural resources, conservation and opportunities to recycle/reuse. Both African and Latin American farmers are concerned about energy use and conservation. It is however, likely to be an indication of more general environmental problems rather than a direct reflection on organic cotton growing – but critically important in the understanding of environmental concerns facing the farmers. African farmers scored well for on-farm plant diversity and protection of natural biodiversity.

Agronomics
Here the results demonstrate a strong indication of positive farming practices, with all scores sitting above the baseline. Farmers in Africa are particularly confident of their agronomic practices. These scores are supported by the many positive comments made by farmers during the assessment meetings (see page 14). The high score for ‘risk management’ by African farmers reflects a good understanding or risk and good risk management plans). Further, a ‘5’ represents no presence of GM or conventional cotton that could possible contaminate organic production.
Social Development

Social Development has the largest number of indicators (9). It is India that presents the most improvement opportunities with a number of areas of concern – ranging from worker terms and conditions, to democracy in decision-making, and how income is invested and distributed. Children and labour is not said to be presenting an issue (generally) for these farm groups. African farmers scores particularly well here for gender, decision-making, and family (net) income.

Economic Development

Economic development is by far the area causing most concern. Although Africa comes out as the best served financially; investment in and ownership of primary processing is well below the baseline for all. The results from India, suggest that economic development is lacking; all but ‘group structure’ fall under the baseline. Further investigation is required to understand why India’s scores are so low (Latin American farmers are also concerned about ownership of organic certification and investment in crop/income diversification). One suggestion could be that at a village level the farmer has little say in his or her financial investment and wealth is not trickling down to the individual household.
Health and Education

Investment in health care stands out as an issue for many farm groups. Health investment includes investment made by farmers, producer groups, project conveners or partners to fill gaps or opportunities to encourage or lobby for investment by third parties or governments. Farmer and worker health looks at specific efforts to monitor and improve farmer and worker health. In terms of education, primary schooling scores are generally fair. In Africa we see particularly strong score for education, including positive promotion for girls. Education for girls is a concern for Latin American farmer families.

Food Security and Nutrition

All farm groups have reported having a reasonably secure supply of food, with African farmers in the main demonstrating self-sufficiency since much of the food is coming from their own organic production. Latin American and Indian farmers tend to need to top up their food supply and this presumably impacts on their finances. For all regions both adult and child nutritional intake is perceived to be fair (above the baseline).
Drawing conclusions; what matters most...

General themes emerging from an examination of all scorecards reveal that ‘high scoring’ farm groups tend to have the following characteristics:

- Less stressful environmental conditions and reliable access to water and energy.
- A good understanding of agro-ecosystems and the importance of on-farm biodiversity.
- Are confident with techniques for organic cotton farming such as maintaining soil fertility, crop diversity and use of biological pest controls.
- Are managing their risks in terms of contamination by GM or hazardous chemicals.
- Well structured ‘producer groups’ with established democratic decision-making processes in place that respects gender equality.
- Net income is stable or increasing, own their certification, have a voice in price negotiations and share economic decision-making.
- Have reliable supply chains and/or supportive partnerships (such as partner NGOs).
- Provide a level of support and even financing to farmers needing health/medical services.
- Have access to education, prioritise attendance at school and are sensitised to the schooling opportunities for girls.
- Are fairly self-sufficient in terms of food supply and do not need to spend large amounts of money ‘topping up’ on basic food requirements.

It cannot be over-emphasised that there will be a number of reasons behind a ‘high score’ ranging from ‘genuine good practice’ to ‘perceived good practice’. For the latter, there is an opportunity to improve awareness through open discussion etc and a good facilitator will identify where awareness may be lacking (keeping in mind cultural norms). Sensitivity around views and the extent of understanding a group may have, is the skill of a good facilitator and may provide an argument for the Latin American 3-step method, which approaches the answer in a series of sessions.

‘Low scoring’ areas on scorecards generally reflect groups that are often struggling with environmental challenges (such as water and soil fertility); are made up of farmers that don’t feel they have any say over, or the support to financially invest in their farms; don’t have the organisational stability; and struggle to achieve social development, health and education for their families; or are just starting out and needing to build their organisations structure and autonomy.

So tentatively, in conclusion, where the farm groups DO score well –it may be due to the advantages organic (and fair-trade) farming brings. Arguably, organic farmers are more in control of, and positive about their farming techniques, food supply etc and the ‘best’ ones tend to ensure benefits for all. Organic farming systems allows these positive trends to shine through even when faced with the adversity that the inherent socio-economic and in some cases environmental conditions may hold. There is still much work to be done on improving the economic advantage that organic production needs to provide. As the industry grows this remains our biggest challenge.
Appendix A: A closer look at the self-assessment scorecards

### Environment Management

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>No Conservation or Management, little understanding</td>
<td>Some ideas and understanding, no plan or implementation of management and conservation measures</td>
<td>Some management or conservation practices</td>
<td>Two or more planned practices and interventions, organised plan in place</td>
<td>No need for (further) interventions or improvements and no deterioration from previous years</td>
</tr>
<tr>
<td>Energy</td>
<td>No access, No understanding or no access to alternatives</td>
<td>Some understanding of problems, poor understanding of alternatives, no plan or lack of access to alternatives or information</td>
<td>Basic to average understanding of problems and alternatives; some practices or planning</td>
<td>One or two practices, some understanding of options and plans in place</td>
<td>Different options are implemented in a well organised strategic plan, regularly reviewed and updated</td>
</tr>
<tr>
<td>Recycling, Reuse and Repair</td>
<td>No policy, little understanding</td>
<td>Some understanding, no policies and little coordinated action</td>
<td>Basic understanding, some action, little planning</td>
<td>1 or 2 actions are planned and implemented, a plan exists</td>
<td>Actions and education are in progress, good and long term plans exist</td>
</tr>
<tr>
<td>Trees, Border crops, Refugees, Agro-ecosystem</td>
<td>No or poor understanding</td>
<td>Some understanding, little or ad-hoc positive intervention, no planning</td>
<td>Basic to average understanding, some interventions, little systematic planning</td>
<td>Good understanding, 1-2 actions, plan is in place</td>
<td>Several coordinated interventions, systematic and long term plan exists</td>
</tr>
<tr>
<td>Biodiversity protection, management and use</td>
<td>No or poor understanding</td>
<td>Some understanding, little or ad-hoc positive intervention, no planning</td>
<td>Basic to average understanding, some interventions, little systematic planning</td>
<td>Good understanding, 1-2 actions, plan is in place</td>
<td>Several coordinated interventions, systematic and long term plan exists</td>
</tr>
<tr>
<td>Indicators</td>
<td>Rank 1</td>
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<tr>
<td>Soil Fertility and Recycling of Organic Matter</td>
<td>Poor/insufficient training and understanding and no implementation</td>
<td>Some training and understanding, lack of systematic implementation</td>
<td>Basic Understanding and Basic implementation plan</td>
<td>Reasonable understanding, implementation could be improved</td>
<td>Good understanding and implementation</td>
</tr>
<tr>
<td>Biodiversity management and Use of Biological Controls</td>
<td>Poor/insufficient training and understanding and no implementation</td>
<td>Some training and understanding, lack of systematic implementation</td>
<td>Basic Understanding and Basic implementation plan</td>
<td>Reasonable understanding, implementation could be improved</td>
<td>Good understanding and implementation</td>
</tr>
<tr>
<td>Risk Management</td>
<td>No understanding of risk and no risk management plan</td>
<td>Poor understanding of risk and poor risk management plan</td>
<td>Reasonable understanding of risk and basic risk management plan</td>
<td>Good understanding of risk and reasonable risk management plan</td>
<td>Good understanding of risk or no Presence of GM or Conventional and/or good risk management plan</td>
</tr>
<tr>
<td>Use of Inputs</td>
<td>Little or no understanding of value of self-reliance and over-dependency on external inputs</td>
<td>Poor understanding of self-reliance and dependency on external inputs</td>
<td>Some basic understanding of self-reliance but continued dependency on some external inputs</td>
<td>Good understanding of self-reliance and active plan to reduce use of external inputs unless absolutely necessary</td>
<td>Good understanding of self-reliance and no use of external inputs unless absolutely essential</td>
</tr>
<tr>
<td>Crop diversity</td>
<td>Poor/insufficient training and understanding and no improvement</td>
<td>Some training and understanding, lack of systematic efforts to improve</td>
<td>Basic Understanding and Basic improvement plan</td>
<td>Reasonable understanding, implementation could be improved</td>
<td>Good understanding and implementation</td>
</tr>
</tbody>
</table>
### Social Development

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td>Labour is casual, seasonal, part-time, wages and conditions do not meet local or legal norms and averages</td>
<td>Labour is mostly casual and seasonal, wages and conditions do not always meet local norms and averages and legal standards</td>
<td>Labour, while often part-time and seasonal, is paid at or above local or legal norms and averages</td>
<td>Labour may be seasonal and part-time but is paid above local or legal norms and standards</td>
<td>Labour is often regular and contracted, and is paid well above local or legal norms and standards</td>
</tr>
<tr>
<td>Children and Labour</td>
<td>No awareness of child labour issues or regulations, management or mitigation actions; Child labour is found</td>
<td>Little awareness of child labour issues or regulations, no management or mitigation of problems; child labour is found</td>
<td>Basic awareness of child labour issues, and some attempts to address problems and manage them; some child labour still found</td>
<td>Reasonable awareness exists, and some attempts exist to reduce problems; Child labour rare in region</td>
<td>Reasonable awareness exists and plans exist to manage problem; Child labour very uncommon or non-existent in region and non-existent in organic cotton</td>
</tr>
<tr>
<td>Changes in labour use and patterns</td>
<td>Labour use is predominantly family and unpaid and there is no change</td>
<td>Labour use mainly family, and mostly unpaid, although some paid labour may be beginning to be used</td>
<td>Labour use is a mixture of mostly unpaid family labour and casual seasonal labour, but there is a trend to more paid family and non family labour and there is a</td>
<td>Almost no unpaid family labour, mostly paid family and paid outside labour</td>
<td>Family labour when used is paid, or only paid labour is used</td>
</tr>
<tr>
<td>Gender</td>
<td>Women do not own or control land or the proceeds of land and its use, and do not or cannot farm themselves</td>
<td>Women may own land but do not control it or make decisions relating to land use, do not benefit from its proceeds and do not or may not farm themselves</td>
<td>Women may own land, make some decisions relating to its use, may receive some proceeds or have a say in their use, but generally do not farm themselves</td>
<td>Women may own land, make decisions relating to its use and the proceeds of land and may farm themselves</td>
<td>Women own land, have full say in its use and use of proceeds, and farm themselves</td>
</tr>
<tr>
<td>Indicators</td>
<td>Rank 1</td>
<td>Rank 2</td>
<td>Rank 3</td>
<td>Rank 4</td>
<td>Rank 5</td>
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</tr>
<tr>
<td>Decision making</td>
<td>There is no organised group either at village or producer group level, no consultation of farmers on key issues, decision making is top down</td>
<td>There is no organised group at village or producer group level, although there may be some consultation on key issues, decision making is top down</td>
<td>There is some organisation at village level and possible at producer group level, consultation on key issues, which may influence decisions although final decisions are top down</td>
<td>There is organisation at village level around an ICS group that may well be elected and contains farmer representatives, a basic organised producer group or representation of farmers at this level, decision making while still top down is participatory</td>
<td>Farmers are organised at village or ICS level and are part of an organised producer group that is a full partner, owner or co-owner in the value chain and trading aspects</td>
</tr>
<tr>
<td>Income and Investment and Distribution</td>
<td>Farmer are only paid a basic seed cotton price, there is no profit share and service costs may be deducted from farmers, premiums are low</td>
<td>Farmers are paid a basic seed cotton price, there is no profit sharing, and premiums are low</td>
<td>Farmers are paid a basic seed cotton price, some profit sharing occurs, premiums are medium</td>
<td>Farmers are paid a basic seed cotton price, profit sharing is systematic and transparent, premiums are medium to good</td>
<td>Farmers are paid a basic seed cotton price, profit sharing takes place in a democratic and co-owned structure, premiums are good</td>
</tr>
<tr>
<td>Net income (family)</td>
<td>Net income in both short term and long term is stagnating or falling</td>
<td>Net income has stagnated or fallen over the past year and is stagnating over time</td>
<td>Net income over the past year and over time is stable</td>
<td>Net income over the past year is stable or stagnant but is rising over time</td>
<td>Net income for past year and over time is growing</td>
</tr>
<tr>
<td>Access to services and infrastructure</td>
<td>Little or no access to services and poor road and transport infrastructure, no public provision</td>
<td>Poor access to services and poor roads and transport, no or poor public provision</td>
<td>Some access to services, basic roads and transport, poor public provision</td>
<td>Reasonable access to services, basic roads and transport, some basic public provision</td>
<td>Reasonable access to services, reasonable roads and transport, reasonable public provision</td>
</tr>
<tr>
<td>Housing and sanitation</td>
<td>Multi-family, no sanitation</td>
<td>Single family, no sanitation</td>
<td>Single family, shared sanitation</td>
<td>Single family, own sanitation</td>
<td>Single family, multi-room, own sanitation</td>
</tr>
</tbody>
</table>
## Economic Development

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm project/Group structure</td>
<td>No structure, managed from the top</td>
<td>Informal structure, some consultation</td>
<td>Formal negotiation and contractual relationships between project and farmers</td>
<td>Farmers involved in negotiation and internal control system</td>
<td>Farmers own or co-own project</td>
</tr>
<tr>
<td>Price and price setting and cost sharing</td>
<td>Fixed by project, no negotiation</td>
<td>Fixed by project, some negotiation</td>
<td>Negotiated, contracted</td>
<td>Negotiated democratically through farmer structures</td>
<td>Set by farmers through own structures</td>
</tr>
<tr>
<td>Investment in and ownership of primary processing</td>
<td>None</td>
<td>None, Sporadic profit sharing</td>
<td>Systematic reinvestment of profits or profit sharing</td>
<td>Shareholding or contractual profit sharing with farmers</td>
<td>Farmer owned or co-owned</td>
</tr>
<tr>
<td>Ownership of certification and trade</td>
<td>Not farmer owned</td>
<td>None, Some access to certification by special arrangement or sporadic profit sharing</td>
<td>Farmers can sell other crops by negotiation through certificate; profit sharing exists</td>
<td>Negotiated co-management of certification and trade or joint decision making/contractual arrangements</td>
<td>Farmer owned or co-owned</td>
</tr>
<tr>
<td>Investment in diversification</td>
<td>None</td>
<td>None, Sporadic profit sharing</td>
<td>Systematic reinvestment of profits or profit sharing</td>
<td>Shareholding or contractual profit sharing with farmers</td>
<td>Farmer owned or co-owned</td>
</tr>
<tr>
<td>Investment in community and social development</td>
<td>None</td>
<td>Some, by external donors</td>
<td>Some, negotiated between projects, farmers and buyers</td>
<td>Project reinvests income, optional participation by buyers/donors</td>
<td>Farmers reinvest income from profits, donors and buyers participate</td>
</tr>
</tbody>
</table>
## Health and Education

<table>
<thead>
<tr>
<th>Indicators</th>
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<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to health care</td>
<td>Little or no access to services (4-8 hours travel), costly, no insurance</td>
<td>Poor access to services (2-4 hours travel), costly, no insurance</td>
<td>Some access to services (Less than 2 hours travel), some insurance or free/subsidized</td>
<td>Reasonable access to services, Insurance available, care free or subsidized</td>
<td>Good access to services locally, Project policy/provision of health insurance/primary care</td>
</tr>
<tr>
<td>Investment (Health)</td>
<td>None</td>
<td>No plans, some ideas or basic investments</td>
<td>Plan exists for provision, no investment plan in place</td>
<td>Plan exists, active funding plan in process</td>
<td>Plan being implemented or decent health provision already exists</td>
</tr>
<tr>
<td>Education access (primary)</td>
<td>Poor or no provision (more than 2 hours travel, costly)</td>
<td>Poor provision (1-2 hours), costly</td>
<td>Reasonable provision, schools exist (less than 1 hour), costly, little or no support for school participation</td>
<td>Reasonable access, project actively encourages school attendance, may provide incentives, free or affordable</td>
<td>Systematic plan to improve attendance and/or provide education access in each community (project plan or project working with local authorities/NGOs/Others), free or affordable</td>
</tr>
<tr>
<td>Education (Girls)</td>
<td>No specific awareness or initiatives</td>
<td>Some awareness, no plans</td>
<td>Basic awareness, some ideas or plans</td>
<td>Awareness, systematic plans and programmes</td>
<td>Systematic monitoring and plans, specific projects, education and funding</td>
</tr>
<tr>
<td>Farmer and worker health</td>
<td>No or little awareness, Not monitored</td>
<td>Some awareness, some ad-hoc monitoring</td>
<td>Awareness, some monitoring</td>
<td>Awareness and monitoring</td>
<td>Systematic monitoring, systematic education and intervention programmes</td>
</tr>
</tbody>
</table>
## Food Security and Nutrition

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family is food secure (income and own production)</td>
<td>Regular food/nutrition shortfalls</td>
<td>Occasional food or nutrition shortfalls</td>
<td>Basic food and nutrition provision</td>
<td>Good and sufficient food and nutrition most of the time</td>
<td>Food secure and nutrition secure</td>
</tr>
<tr>
<td>Community is food secure</td>
<td>Regular food/nutrition shortfalls</td>
<td>Occasional food or nutrition shortfalls</td>
<td>Basic food and nutrition provision</td>
<td>Good and sufficient food and nutrition most of the time</td>
<td>Food secure and nutrition secure</td>
</tr>
<tr>
<td>Food security from own production is</td>
<td>Less than 50% Food secure, obliged to buy basic foods as well as extras/afford few luxuries</td>
<td>50-75%, have to buy many extras as well as luxuries (can afford few)</td>
<td>75% - have to buy some basic food as well as luxuries, which can be afforded only sometimes</td>
<td>75-100% but extras have to be purchased sometimes; luxuries can be afforded</td>
<td>100% and can afford or access luxuries</td>
</tr>
<tr>
<td>Amount spent on topping up food security</td>
<td>50% of cash income</td>
<td>25% of cash income</td>
<td>12.5% of cash income</td>
<td>6% of cash income</td>
<td>Less than 6% of cash income</td>
</tr>
<tr>
<td>Adult nutrition</td>
<td>Poor</td>
<td>Adequate</td>
<td>Good</td>
<td>Very Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>Under 15s nutrition</td>
<td>Poor</td>
<td>Adequate</td>
<td>Good</td>
<td>Very Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>