Quantifying sustainability risks among suppliers and certificate holders
Best practices and lessons learned
A study commissioned by ISEAL Alliance
January 2017
About Proforest

Proforest is an independent mission-driven organisation working in the field of natural resource management and specialising in practical approaches to sustainability. Our expertise covers all aspects of the natural resources sector, from biodiversity conservation, sustainable forestry and agricultural commodities production to responsible sourcing, supply chain management and investment.

Proforest works to transform commodity production as well as supply chains and sectors through developing awareness about sustainability, helping to generate commitment to better practice, supporting implementation of these commitments in practice and working with the wider community to increase the positive impact.

Proforest Ltd provides direct support to companies implementing responsible production, sourcing and investment for agricultural and forest commodities.

The Proforest team is international and multilingual and comes from a wide variety of backgrounds, including industry, academia and civil society. This allows us to work comfortably with diverse organisations in a range of cultures. We have in-house knowledge of more than 15 languages, including English, Bahasa Indonesia, Portuguese, Mandarin, French and Spanish.

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Proforest Limited is a registered company in England and Wales (Company number 3893149).
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Executive summary

Background to the study
A growing number of organisations are incorporating risk-based approaches into their efforts to promote sustainable production and sourcing. There is significant potential for standards bodies to better understand where the highest risks of unsustainable practices among producers are, and to use that understanding to guide their standards and to focus their audits, monitoring and capacity-building. Sustainability is becoming an ever greater factor in investment and procurement decisions, and many financial institutions and multinational corporations are also refining their risk assessment strategies in this area.

The ISEAL Alliance commissioned Proforest to conduct a study of sustainability risk-based approaches being used, in order to assess their strengths, identify challenges and suggest lessons that can be shared. Although the study focuses on forestry, agriculture, fisheries and textiles, it is intended to be applicable to other sectors. The findings are based on: a literature review; discussions with experts; and interviews and surveys with 40 organisations, comprising 16 standards bodies and accreditation bodies (SABs) and 23 private sector organisations.

Uses of risk assessment in sustainability
SABs most commonly apply the results of risk assessment to increase the sophistication of their certification system, such as using risk analysis to select a sample of producers to be audited. They are also using risk assessment to identify emerging sustainability issues and in the quality control of their certification bodies and auditors. The priority for retailers, manufacturers and investors is to use risk assessment to identify individual producers, sectors or geographical regions which are most likely to fail to comply with sustainability requirements. All organisations are, to a greater or lesser extent, considering three types of risk: (1) risk related to a product, species or sector; (2) risk related to the geographical area where the commodity is produced or sourced; and (3) risk related to an individual producer or certificate holder.

Overview of seven approaches used
The study identified seven approaches to risk assessment which the organisations are using in combination. The most common are desk-based risk assessment and using the experience and results of site audits or verification assessments. In addition, SABs derive risk information from complaints, stakeholder consultation and producer self-assessments. The private sector uses direct supplier engagement and is also more likely to use geospatial risk assessment. A variety of methods and data sources can be used for these risk assessment approaches; in general, private sector organisations have greater capacity to use some of the more technical or costly tools.

Some differences between sectors also emerged. Agriculture, forestry and especially fisheries use quantitative geospatial methods and scientific data, whereas textiles is stronger in qualitative and consultative methods. Fisheries also often uses stakeholder consultation to identify high-risk areas, but is less able than the other sectors to draw on site audits and verification visits.
A review of each approach identified some lessons learned and potential new applications to explore. It suggests a wide range of open-access data and tools are available to organisations for assessing risk at different levels, and that one of the most valuable uses of these may be to narrow the scope of geographical risk factors from country level to jurisdictional or local level. A promising new development is the use of aggregated audit data to identify sectoral or geographical risks and assess auditors’ performance. However, several companies suggested that certification standards are not always capturing all the potential sustainability and ethical impacts that may occur. A better understanding by the SABs of the needs of the private sector might increase the effectiveness and the impact of certain certification systems.

Benefits and challenges

As a whole, SABs are still learning what the benefits are from incorporating risk assessment approaches into their processes and ways of working. One observed advantage is that it helps SABs to increase the accuracy of audits and focus the scope of efforts. It also helps them to quality-check certification bodies and audit findings in a more targeted and cost-effective way. More broadly, risk identification strategies can be extremely valuable given the dynamic nature of many sustainability standards today. In a context of continuous improvement, risk work can help SABs to monitor producer performance, decide on the frequency of surveillance visits and other interventions, target areas for capacity-building and identify emerging risks to incorporate in revisions to their standards.

Companies report that using risk-based approaches helps to make their risk mitigation interventions more effective, by informing supplier monitoring and capacity-building and channelling resources to the sustainability areas where they are most needed. There is a range of further benefits, including guiding strategy and procurement decisions and pushing organisations to collaborate more with knowledge-holders and stakeholders.

An important aspect which influences how an organisation may benefit from using risk assessment strategies is their internal capacity in, for example, analysing data or communicating the findings of risk assessments between departments. Capacity constraints are a particular concern for SABs, while the private sector faces the challenge of acquiring better knowledge of certification systems.

In general, challenges reported by organisations in using risk-based approaches fall into three categories: (1) practical challenges, such as cost and gaining access to sufficiently accurate and up-to-date data; (2) cultural challenges, such as the challenge of accustoming auditors in moving from ‘yes/no’ checklists to a more risk-based approach, or persuading colleagues to shift from random to risk-based sample selection; and (3) the strategic and practical challenge of how to act on the findings of risk assessments.

Sharing best practice and emerging approaches

Systematic information on the effectiveness of risk-based approaches is largely lacking. There is a clear need for studies which measure and compare the reliability, scale and cost-effectiveness of different risk indicators and assessment methods. It would be useful to compare findings about a particular sustainability
issue gained from desk-based quantitative analysis, qualitative consultations with stakeholders and consideration of aggregated audit reports, non-compliances and complaints. However, based on questionnaire responses and interviews with organisations and experts, some observations can be made. Firstly, effective risk-based approaches use a combination of methods and data sources to assess different types of risk at different stages of an organisation’s journey. Secondly, taking an iterative approach, using increasingly granular and resource-intensive methods to drill down to the highest risk areas and triangulating findings from different sources are all recommended approaches. Lastly, networks with peers, subject specialists and stakeholders in local areas are all highly valuable for helping organisations to ensure that they have an up-to-date understanding of the most likely sustainability issues to occur and the most influential risk factors. This can help organisations to make more efficient use of, or where appropriate to bypass, analysis of big datasets. The study suggests that effective organisations cultivate strong networks with civil society organisations as part of their risk assessment approaches.

Bearing in mind a relatively small sample size of organisations reviewed, it may be possible to suggest certain areas where individual sectors or organisation types are particularly strong (see box below). There is great potential for organisations to build on these strengths but also address some of their relatively weak areas by increasing collaborative networks to share best practice and new technology in this emerging area, particularly between standards bodies and the private sector, and between commodity sectors.

### Areas of strength in risk-based approaches by sector and by organisation type

#### Sectors

**Agriculture**
- Producer self-assessment tools
- Geospatial risk tools and factors (including subnational)
- Assessing environmental risks

**Apparel**
- Assessing labour-related risks
- Qualitative methods
- Factory self-assessment tools
- Industry collaboration through forums and information-exchange platforms

**Fisheries**
- Making use of scientific and academic data sources
- Industry collaboration and stakeholder consultation
- Development of geospatial tools

**Forestry**
- Incorporating legality risk
- Using traceability and species data
- Self-assessment and due diligence approaches, including among downstream supply-chain actors
- Assessing risks related to indigenous peoples’ rights

#### Organisations

**Standards and accreditation bodies**
- Using risk-based approaches to inform audit sampling and scope
- Analysis of factors determining auditor reliability
- Incorporating complaints and grievance data as risk indicators
- Stakeholder consultation
- Assessing supplier and sector risk

**Corporations and financial institutions**
- Building internal risk management capacity
- Responding swiftly to events and risk trends
- Using technical desk-based sources such as indices and geospatial data
- Making use of NGO reports
- Assessing financial sustainability, corruption and compliance risk
- Assessing country risk
1 Introduction

For several years the ISEAL Alliance, the international membership organisation for sustainability standards, has been exploring and encouraging the use of risk-based approaches among its members as a strategy for increasing the effectiveness and efficiency of standards and certification. With the availability of data from a growing range of sources, there is significant potential for standards bodies to better understand where the highest risks of unsustainable practices among producers are, and to use that understanding to guide their standards and to focus their audits, monitoring and capacity-building on the high-risk areas.

Strategies to assess or quantify risk are increasingly common for assuring the sustainable production of commodities and services. Sustainability is becoming an ever greater factor in investment and procurement decisions, as worldwide awareness of sustainability issues grows and organisations face pressure to commit to minimum standards of social and environmental sustainability. It is important that standards bodies can respond by ensuring their standards serve as a benchmark and provide a reliable level of assurance in the areas of greatest risk. But there is also an opportunity for standards bodies and their associated accreditation bodies to benefit from integrating risk-based approaches more into their systems: good risk assessment strategies help organisations to respond to real-world trends and target their resources.

Many financial institutions and multinational corporations already have risk management tools for internal prioritisation and due diligence. But they face a new challenge to refine ethical and sustainability risk assessment strategies as organisations put into practice their sustainable sourcing and procurement commitments. A growing number of standards and accreditation bodies are also incorporating risk assessment strategies. A glance at the Standards Map database reveals several sustainability standards using risk assessment to select individuals or organisations to be audited, but also to design improvement programmes for producers and schedule inspection regimes. There will be lessons to be learned from the adoption of risk-based approaches, and other organisations are just starting out on this journey.

Therefore, ISEAL commissioned Proforest to conduct an in-depth study of risk quantification strategies being used for assurance of sustainable production and sourcing. We were asked to consider the assurance systems used not only by standards and accreditation bodies but also by organisations in the private sector. This report is therefore intended to be useful for a wide audience. The aim is to provide an overview of approaches being applied, in order to assess the approaches’ relative strengths, identify challenges and suggest lessons that can be shared between different sectors and types of organisation. Although the study focuses on four ISEAL commodity sectors – forestry, agriculture, fisheries and apparel – the findings are intended to be applicable to other commodities and services. This topic was discussed at an ISEAL Risk Management Workshop in November 2016, and this report builds on the challenges identified then.

1 http://www.standardsmap.org/
About the study

The primary objectives of this study were to assess how risk assessment strategies are used in organisations’ assurance systems to quantify high-risk areas and anomalies in supply chains and related auditing practices, and to identify best practices for such tools. The study was guided by the following questions:

1. What are the main differences among assurance systems in selection of risk factors and methods for data gathering, data management and analysis?
2. How are risk factors used to assure the effectiveness and accuracy of second- and third-party auditing practices?
3. What emerging or proposed approaches are being used?
4. What are the relative strengths and weaknesses of the different methodologies?
5. What are the best practices for using risk factors in sustainability assurance systems?

In order to manage the scope of the study in the available time, we focused on risk assessment strategies in four main sector areas: agriculture and biofuels; forestry; manufacturing and textiles (apparel); and fisheries and aquaculture.

The findings of this study are based on: a review of literature on risk-based approaches; discussions with NGOs, service providers and other organisations that are active in this area; and a specific review of risk-based approaches used by 40 organisations. Drawn from the four selected sectors, the 40 organisations comprise:

- 17 standards and accreditation bodies (SABs), comprising 16 bodies (both ISEAL members and non-members) which run sustainability standards and one accreditation body; and
- 23 private sector organisations, comprising international corporations (in retail, manufacturing and agribusiness and aquaculture), financial institutions and industry organisations (see Figure 1).

In most cases, either the organisation works in a single sector (e.g. a certification scheme for forestry, a garment manufacturer) or they gave information about one sector that they operate in. However, six of the 40 reviewed organisations provided information on approaches that cut across more than one of the sectors and are referred to as ‘Multiple’ in this report.

The organisations’ approaches were assessed using a questionnaire sent by email, followed up by semi-structured interviews and/or review of their documentation. In total, 17 SABs and 12 private sector organisations filled in the questionnaire, and seven SABs, seven enterprises, and eight other organisations were interviewed. As most participants requested for their responses to be non-attributable to their individual organisations, the names of participating organisations are not given, although examples based on publicly available information are attributed.

More information on the methodology of the study can be found in Annex 1.
3 How and why organisations are using risk

a. Introduction: what risks are we talking about?
Before we begin a review of how SABs and private sector organisations are using risk assessment, it is useful to clarify what kinds of risk we are referring to.

Actors involved in sustainable and ethical sourcing are concerned with the potential adverse impacts which are caused by, or associated with, commodity production. These impacts are broadly grouped into environmental and social impacts. They include, for example, deforestation and over-fishing, labour rights abuses and environmental pollution. To evaluate the sustainability of production on a wide scale, organisations must assess the likelihood, or risk, of those impacts occurring among producers. We also talk of sustainability issues or threats.

There are two further areas of risk which organisations must consider. The first is the risk of producers not complying with sustainability policies to prevent or mitigate impacts. This can be affected by the producer’s capacity and type of business as well as the wider institutional and governance environment in which they operate. The second area is the reliability of methods used for assessing and monitoring compliance by producers with the sustainability policies. These methods include auditing and surveillance by sustainability standards and their nominated certification bodies.

Taken together, these three areas can be assessed using tools to identify individual producers, certain sectors, products or species, or entire geographical regions which are at risk of not operating according to defined sustainability or ethical standards. In our survey, we asked the respondents how they make use of such tools in their systems and sustainability assurance efforts.

b. Standards and accreditation bodies
The most common way that SABs apply the results of risk assessment work is to increase the sophistication of the certification audit systems used for their standards. Information on risk is used to decide the scope (geographical or in terms of topic), sample size, frequency and or nature (desk- or field-based) of certification audits. It is now the norm for standards bodies to use risk assessment to determine the size and nature of the sample of producers for certification audits, although in most cases this is in combination with random sampling techniques (Figure 2).

However, SABs are using risk assessment in several other ways also (Figure 3). More than half of the reviewed standards bodies use risk findings to guide them when revising their standards – by identifying emerging impact areas which should be addressed through new requirements for producers, by adding nuance to compliance criteria of existing requirements in the standard or by identifying context-specific risks to be included in a national interpretation. Almost half of the standards bodies also use risk identification for monitoring compliance of certificate holders. The Roundtable on Responsible Soy, for example, requires managers of certified farm groups to undertake risk assessment of members, and the results are used to schedule internal audits and to decide when an external monitoring audit is needed.
Experiences suggest that a clearer understanding of risks at producer or geographical level can help at various other points in the work of sustainability SABs, be it at a strategic level or with more practical aspects such as monitoring auditors and – increasingly – helping certificate holders to improve their performance. Several interviewees argued that standards bodies should try to play a more important role in this continuous improvement aspect of certification, and suggested that risk assessment strategies might help to communicate information on performance back to the certificate holder. For example, Better Cotton Initiative conducts risk analysis when starting up in a new country to identify sustainability hotspots, and uses the results to plan the focus of continuous improvement for certified farmers.

Some bodies are using risk in the area between certification and non-certification, such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) in the forestry sector, which use risk-based approaches to manage the inclusion of some non-certified material into certified chains of custody. PEFC has a mandatory due diligence process to minimise the risk of sourcing timber from so-called controversial sources. Certified suppliers are required to carry out due diligence for any certified material for which a complaint has been made; and for all non-certified material. These risk-based control systems help to mitigate the risk of illegality in addition to several further risks – the risk indicators in FSC’s system, for example, include if wood has been harvested in violation of traditional rights or where high conservation values are threatened by forest management activities.

Another major way in which SABs use risk-based approaches is in the quality control of their certification bodies and auditors. The bodies have identified indicators which point to a likelihood of low-quality audits, and if risk assessment against those indicators suggests high-risk auditors, then the bodies take action such as increasing their level of oversight, taking part in witness audits or requesting a second opinion of audit reports. Some of this work is being led by Accreditation Services International (ASI), which has developed a Risk Score Tool for organisations to assess performance of auditors and assessors (for more detail on individual tools, see Section 5 below). In this way, risk strategies help bodies...
ensure the integrity of their standards, but it can also help to improve efficiency by ensuring that time during audits and follow-up visits is spent in the right areas.

c. Private-sector organisations

The priority for retailers and manufacturers is to use risk assessment to identify or screen high-risk producers, either which are already in the supply chain or which could possibly be sourced from. Financial institutions rely on risk identification strategies to guide them in their investment decisions, using analyses to assure themselves that projects clear minimum sustainability criteria or standards. They also use sustainability standards to set conditions, and monitor risk of compliance, in legal agreements with the organisations they are lending to or investing in.

Similarly to how standards bodies use risk assessments to inform the development of their standards, private organisations often draw on risk assessments to decide priority issues for their sustainability policies. This is indicated as ‘Evidence-based assessment’ in Figure 4 below. Although, as that figure shows, the private sector’s choice of priority issues is also influenced by the organisation’s internal strategy and capacity and by outside pressure from non-governmental organisations (NGOs) and legislation changes.

![Figure 4](image-url)

**Figure 4. How private sector organisations identify priority sustainability issues.** Respondents could select more than one answer. Sample size is 11 organisations.

“After the Rana Plaza tragedy, SAI revised its methodology to include more unannounced audits in high-risk countries”

d. Triggers of risk-based approaches

In many cases, an external event triggers the use of a risk assessment strategy. Both private sector organisations and SABs have been prompted to conduct risk assessments and develop policies for follow-up action in response to NGO pressure or individual audit findings. For example, after the Rana Plaza tragedy in Bangladesh in 2012, SAI revised the SA 8000 accreditation and certification methodology to include more unannounced surveillance audits in high-risk countries. Currently, growing awareness of labour-related issues are driving efforts among standards bodies and in the private sector. For example, concerns about forced labour in fishing are a factor in the current development by Seafood and partners of a tool to identify risks of slavery and human rights abuses (see Section 5.2 for more detail).

It is likely that organisations will continuously need to respond to emerging trends and supply-base changes in future, and having capacity already in place for conducting risk-based work will be highly advantageous.
4 Types of risk considered by organisations

a. Introduction

Whether a standards body, an investment bank or a global food manufacturer, all the organisations reviewed broadly consider three types of risk to some extent:

1. Risk related to the product, species or sector;
2. Risk related to the geographical area where the commodity is produced or sourced (geographical risk); and
3. Risk related to the individual producer or certificate holder.

The first two types of risk are sometimes also referred to as ‘external risks’, while the last category is also known as ‘internal risk’.  

Sector-, product- or species-related risk: Some sectors, products or species are strongly linked to particular sustainability issues. The production of hazelnuts and cocoa, for example, is known to be associated with child labour. Another example is the manufacturing of certain materials in the textiles industry which are known to use particularly toxic and hazardous chemicals. In many cases, the sector, product or species is a significant risk factor which can greatly affect likelihood of certain issues emerging. The consideration of sector-, product- or species-related risk can be an essential component of efforts to identify sustainability or ethical issues in supply chains or among certificate holders.

Geographical risk: Because of variation in geophysical, cultural and institutional factors, some geographical areas are more exposed to risk than others. For example, countries that are known to have high corruption levels are often associated with risk of producers not complying with environmental and labour laws, or of auditors being vulnerable to bribery; agricultural operations located in an area with high deforestation rates might be more likely to be implicated in forest clearance. Such geographical factors are very often considered in organisations’ risk assessment strategies, to generate so-called risk hotspots.

Supplier or producer risk: Supplier or producer risk refers to internal risks that are associated with the production enterprise which is supplying the company or being certified, be it a factory, an individual fishing boat, a forest management company or a farmers’ cooperative. The lack of an environmental policy, for example, or the fact that a factory employs subcontractors, can be used as a risk indicator. For most organisations, the identification of supplier- or certificate-holder risk is a fundamental part of their risk assessment approaches.

These three levels of risk, which we could also think of as three categories of risk factors, are considered by the organisations as potential determinants for all sustainability threats that they may be concerned with, whether social or environmental. To measure the level of risk in these three areas, the organisations use a range of risk indicators. The most common indicators are shown in Table 1.

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2 The OECD has suggested a similar classification of country risk factors, product risk factors and company risk factors (see [https://www.oecd.org/daf/inv/mne/Due-Diligence-Guidance-Responsible-Supply-Chains-Textiles-Footwear.pdf](https://www.oecd.org/daf/inv/mne/Due-Diligence-Guidance-Responsible-Supply-Chains-Textiles-Footwear.pdf)).
Table 1. Common indicators used for the three types of risk

<table>
<thead>
<tr>
<th>Type of risk</th>
<th>Common risk indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector-, product- or species-related risk</td>
<td>Production-specific indicators such as level of mechanisation or use of chemicals, level of standards compliance or public governance in the sector, endangered status of species</td>
</tr>
<tr>
<td>Geographical risk</td>
<td>Corruption level, level of law enforcement and other elements of institutional quality, presence of armed conflict, socio-economic and human rights indicators, deforestation or harvesting rate, presence of High Conservation Values, frequency of non-conformities by certificate holders in the area</td>
</tr>
<tr>
<td>Supplier or producer risk</td>
<td>Size of operation, type of employment, type of production used, presence of lawsuits or complaints against the producer, ownership structure, management capacity, certification status</td>
</tr>
</tbody>
</table>

b. Summary of findings

Organisations: Over 80% of the organisations reviewed consider supplier- or certificate holder-related risk as part of their overall risk-based approaches, while about 75% consider geographical risk. It is less common for organisations to consider sector-, product- or species-related risk, as this was explicitly referenced by only half of the respondents, although clearly some standards and companies operate in particular sectors (e.g. fisheries, textiles) and thus sector-related risks are inherently part of their overall strategy. In terms of the differences between types of organisation: very generally, SBs spend more effort considering risks at the producer or supplier level, and the private sector spends more effort considering risks at a wider sector, product or species level.

Sectors: A comparison of the consideration of risk types across sectors is given in Figure 5. It shows that the fisheries sector pays greater attention to species-related risk than the other sectors. This is probably related to the extractive nature of fisheries, and the fact that overharvesting of certain fish species might result in the depletion of resources, which is a threat for the sector itself. On the other hand, the fisheries sector spends less effort on identifying supplier or certificate holder risk than the other sectors. For the agricultural sector, this pattern seems to be reversed: supplier or certificate holder risk is widely assessed, while product-related risk is assessed by only 30% of the respondents. As most of the respondents from the agricultural sector in this survey focus their activities on one product, identifying product-related risk is less relevant for them.

Figure 5. The percentage of organisations, by sector, which consider each risk type. Sample sizes are 7 for fisheries, 9 for apparel, 14 for agriculture, 4 for forestry, and 6 for organisations working across multiple sectors. Respondents could select more than one answer.
5 Approaches for assessing risk

a. Introduction

Organisations are using a wide variety of tools and methods for identifying sustainability issues among suppliers and certificate holders and quantifying the risks. Based on their characteristics, processes and the data sources they make use of, the following approaches can be identified:

1. Certification audits and site assessments
2. Desk-based risk assessment
3. Complaints and incident assessment
4. Stakeholder consultations
5. Producer self-assessments and internal audits
6. Supplier engagement
7. Geospatial assessment

The classification is of course artificial and they often overlap, as organisations use multiple approaches in a layered risk-based strategy. Some approaches seem to be more effective for assessing certain risk types. For example, self-assessments conducted by the producer themselves are of course highly effective for identifying supplier or producer risks, while geospatial risk assessments are better suited for addressing geographical risk. The strategies for quantifying risk and their usefulness for addressing the different types of risk are further explored in the sub-sections below.

Table 2. Overview of most common approaches used by reviewed organisations

<table>
<thead>
<tr>
<th>Approach</th>
<th>Common methods and data sources</th>
<th>Risk factors (types of risk) most commonly assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-site assessments and certification audits</td>
<td>Findings from third-party audits against a certification standard, or site assessments against a buyer’s commitments</td>
<td>Supplier risk, auditor risk</td>
</tr>
<tr>
<td>Desk-based risk assessment</td>
<td>Risk indices, narrative reports, datasets and databases, and supplier data, analysed in-house or by a consultant</td>
<td>Product risk, geographical risk and supplier risk</td>
</tr>
<tr>
<td>Complaints and incidents assessment</td>
<td>Regular or ad hoc compilation and review of complaints and grievances logged following a formal procedure set out in a standard or buyer’s policy; or alerts of wider incidents</td>
<td>Supplier risk, auditor risk</td>
</tr>
<tr>
<td>Stakeholder consultation</td>
<td>Formal or ad hoc workshops, in-country meetings and outreach, informal intelligence-gathering, and peer-to-peer forums facilitated by neutral party or membership structure</td>
<td>Product risk, geographical risk and supplier risk</td>
</tr>
<tr>
<td>Producer self-assessments and internal audits</td>
<td>Online forms and platforms, may be completed by producers as part of requirements from standards body or buyer</td>
<td>Supplier risk</td>
</tr>
<tr>
<td>Supplier engagement</td>
<td>Webinars, questionnaires, informal meetings and discussions by a buyer or their sustainability consultant</td>
<td>Supplier risk</td>
</tr>
<tr>
<td>Geospatial assessment</td>
<td>Assessment using GIS and geofenced data, or bespoke mapping tools available for certain sectors or threats</td>
<td>Geographical risk (especially geophysical indicators of environmental risks)</td>
</tr>
</tbody>
</table>
b. Summary of findings

Organisations: All the SABs make use of the results of certification audits to identify risk among producers (but also to identify geographical and product risk, see Section 5.1), and about 70% of the private sector organisations are assessing producers on site through second- or third-party verification visits for the same reason.

Desk-based risk assessment is a very common approach to identify and quantify risk and is the most widely used tool for assessing risk by private sector organisations, although SABs also rely heavily on this technique to quantify risk. It is used to assess the full range of geographical, product-, or supplier-related risks, and organisations make use of a wide variety of data sources, including publicly available indices; reports published by governments; and supplier or certificate holder characteristics. In addition, several companies mention using NGO reports to identify risks, whereas none of the SABs assessed are doing so.

Over 50% of the SABs have some sort of complaints or incidents procedure to address risk, which is linked to their certification compliance system. Private sector organisations are less likely to have the structures in place to use a similar approach, although we identified one enterprise which does.

Stakeholder consultations are used as a means to identify risk by about 50% of the SABs, and about one-third of the private companies. SABs seem more likely to make use of producer self-assessments to quantify risks – about 40% of those reviewed do so, compared with less than 20% of the private sector organisations.

Supplier engagement and geospatial risk assessments are, although both interesting and promising approaches (see Sections 6 and 5.7, respectively), less widely used by both SABs and private sector companies to assess risk.

An overview of the use of these approaches to quantify risk is given in Figure 6.

Figure 6. Use of different risk assessment strategies by standards and accreditation bodies and private sector organisations. Sample size of SABs is 17, and of private sector organisations 23. Respondents could select more than one answer.
Sectors: All sectors rely heavily on the review of desk-based sources to quantify risk, but complementing this with site verifications and certification audits seems to be less popular in fisheries than other sectors. This has to do with the nature of fishing: although on-site verifications of aquaculture farms can easily be integrated in a risk assessment strategy, site audits or visits of vessels in the open ocean are far more difficult and costly to organise. One of our respondents highlighted that: “As vessels are sometimes off-shore for weeks, on-site verifications are highly impractical and costly to execute, which makes assurance systems more challenging and complicated in the fisheries than in other sectors.”

Rather, the fisheries sector, as well as the agriculture sector, makes good use of quantitative geospatial methods and scientific data. The textiles sector, meanwhile, often uses qualitative and consultative methods to identify risks, such as field-based scoping studies and stakeholder meetings. Fisheries organisations do also use stakeholder consultation to identify high-probability sustainability issues in the sector, which reflects the large number of industry bodies and multi-stakeholder initiatives in seafood and aquaculture. In agriculture, meanwhile, supplier engagement (by private-sector buyers) and reviewing complaints and incidences are also popular methods.

The forest sector is strong on drawing risk-related information from self-assessment and self-reporting, which partly reflects the requirements for producer due diligence which have become key elements of the FSC and PEFC systems in recent years. Surprisingly, stakeholder consultations seem not to be used as a risk assessment tool in forestry, but this might be a result of our small sample size. Similarly, complaint mechanisms to assess risks seem not to be used in the apparel sector.

A snapshot of the differences between sectors is shown in Figure 7.

Figure 7. Variations by sector in organisations’ use of risk assessment approaches.
Sample sizes are 7 for fisheries, 9 for apparel, 14 for agriculture, 4 for forestry, and 6 for organisations working across multiple sectors. Respondents could select more than one answer.
5.1 Certification audits and site assessments

**Key points:**
- Private sector see certification as a key part of their risk strategies
- Potential to use results from individual sites for wider analysis
- Some concern that certification does not capture all potential issues

**a. Certification audits**

Certification is, by its nature, a sustainability assurance tool. Most private sector organisations reviewed consider the holding of a certificate to be an indicator of low risk, and almost all of those reviewed are using certification as part of their risk management strategies. But, beyond the certificate itself, this category refers to the specific use of information gathered from site audits to inform assessment of risk.

At the simplest level, organisations can use findings in audit reports to assess risks among an individual certificate holder’s practices. Areas of non-compliance are an indication of where impact mitigation efforts should be targeted. This is the predominant use currently, as suggested in Figure 8. However, information regarding certificate holders’ performance is also used in a broader context for quantifying supplier- or certificate holder risk. For example, SABs are able to use detailed audit reports and feedback from auditors to monitor risk patterns among certificate holders in the sectors or countries where they operate. To help some certification schemes assess quality risks among their certification bodies, ASI is studying long-term audit data to reveal trends in auditors’ findings. As discussed earlier in Section 3, it is possible to use systematic reviews of multiple audits to assess risks at a wider sectoral or geographical level (see Box 2). Several SABs consider the first certification in a country to be of higher risk than subsequent audits, and thereby use this approach to identify geographical risk, and the same principle applies for a standard applied to a new commodity or species. Although it is not known whether this is an effective risk indicator, it seems to be a good precautionary principle.

Certification information is generally considered a trustworthy and useful source of information for identifying high-risk areas. However, several companies suggested that certification standards are not always capturing all the potential sustainability and ethical impacts that may occur. One representative of an apparel group commented: “*Even when a supplier is certified to an approved standard, it is important to conduct periodic due diligence to internally verify compliance. When it comes to social responsibility, our policy requires us to internally approve a supplier through the performance of a pre-sourcing audit and follow-up measures before we rely on certification as a means of mitigating risk. We feel that this is critical to getting to know our suppliers and ensuring that risk is at an acceptable level before relying on a third-party certification.*”

A better understanding by the SABs of the needs of the private sector in terms of sustainability and ethical assurance might thus increase the effectiveness and the impact of certain certification systems. One of our private sector respondents highlighted that they also would like to be involved in the auditing system, by

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**Figure 8. Types of risk identified by using certification audits and site assessments.** In total, the use of on-site verifications and certification audits was reported 40 times.

**Box 2. Identifying geographical trends using certification performance**

An emerging and promising trend is the use of certification audit performance to identify geographical risk. Long-term and large-scale records of audit findings have potential to reveal underlying trends, thereby assisting in geographical or sectoral risk profiling. Accreditation Services International (ASI) is conducting pilot testing on these kinds of risk assessment tools using long-term audit results from FSC, MSC and ASC.
engaging with certification bodies in order to discuss their specific areas of concern before field audits take place.

Our review suggests the apparel sector makes less use of certification status of suppliers to assess risk than other sectors. Certification schemes are in general not as well developed in the textiles industry as in other sectors. However, there is increasing use in the apparel sector of third-party audits of factories against standards such as Sedex’ SMETA and the Fair Labor Association and BSCI Codes of Conduct. These standards are developed by industry membership bodies and are not certification processes, and could be categorised as a form of on-site verification assessment, especially when requested by a buyer.

b. On-site verification assessments

Private sector organisations may use on-site verification, in addition to or in the absence of certification, to assess risks at individual supplier level. They can be organised internally, but many companies rely on experts and consultants for these assessments. Where there is good industry coordination, on-site verifications are often executed in the framework of Sedex-like platforms for sharing results (Figure 9). In general, most of the companies reviewed in this study consider information from on-site second- and third-party verifications as one of the most important and robust information sources for risk assessments.

A major problem with on-site verifications is their inefficiency and their high cost, however, and it is in most cases not feasible to visit all the production units in a supply base. A soy crusher or palm oil mill, for example, often supplies from hundreds, or even thousands, of producers. In most cases, a more general risk assessment will thus be executed to identify the units that are at the highest risk, which will be targeted by a field verification. (This is similar to the use of risk-based approaches by SABs to decide on the sample of producers to be audited and surveyed.) As such, an on-site verification is in most cases the last step in the risk assessment methodology of a private company.

5.2 Desk-based risk assessment

Key points:
- The most popular approach, and often a starting point
- Well-resourced organisations benefit from internal capacity and from being able to acquire proprietary tools, but many information sources are freely available
- Potential for some sectors to broaden the sources they currently use

In this report, we use ‘desk-based risk assessment’ as an umbrella concept that refers to risk assessments which are executed without any field visit or consultation of stakeholders, and which make use of a wide range of qualitative and quantitative data sources, including publicly available risk indices and datasets, country reports, and certificate holder or supplier data.

Reviewing desk sources is the most widely used approach for assessing risk that we identified in this study, and it is frequently used as a first step in a broader risk-based strategy. SABs and private sector organisations all consult a range of sources, but the private sector appears to be making more use than SABs are of
Quantifying sustainability risk among suppliers and certificate holders  
Best practices and lessons learned

risk reports produced by national governments and academic sources. In addition, several companies mention using NGO reports to identify high-risk issues, whereas none of the SABs are doing so. Perhaps reflecting their greater resources, private companies also rely much more on internal expertise and on a wider range of indices – notably proprietary data from private providers – for their risk assessments. Such organisations may develop their own risk frameworks or toolkits, drawing on a range of desk-based sources and techniques. A respondent from the financial sector explained: “We have our risk assessment toolkit for fund managers, which we ask our partners to use. Where we feel we need more environmental and social information we hire third-party specialists – generally consultants, sometimes NGOs.”

Desk-based risk assessment is mostly used for assessing geographical risk (Figure 10.) associated with a specific region, country, or jurisdiction. However, the findings are frequently used to put together a risk profile of a specific supplier (based on reported data and publicly available information), or to assess the risks related to the manufacturing of a product or to the sustainability risks associated with specific species.

In the following sections, the most frequently used data sources that are being used in desk-based risk assessment are discussed.

a. Risk indices

One of the most commonly used data sources for risk assessments are risk indices. Risk indices are mainly used to score the (geographical) risks associated with a specific country or region. Most respondents consider risk indices to be very informative for risk assessments and they are one of the easiest data sources to use. As indices give a quantitative indication of risk, they can easily be plugged into risk assessment tools to derive a quantitative risk score. One of the main problems with risk indices is their lack of granularity, as they are typically only available on country-level.

Risk indices can be acquired from a variety of sources. A wide range of organisations have developed indices for quantifying environmental or social country risk, and these tools are often freely available. An overview of the indices that are being used by the 40 organisations reviewed is given in Annex 2, and some of the most widely used are discussed below.

Governance and institutions The Corruption Perceptions Index (CPI), developed by Transparency International, is one of the most widely used indices to quantify country risk. The CPI is based upon the perception of business people and country experts of the level of corruption in the public sector. One of our respondents argued that a limitation of the CPI is that it is based upon perceptions, and not on facts, which builds in prejudice and might have a negative impact on decisions. When using the CPI, one also needs to keep in mind that it is only giving an indication of risk at national level, and it might thus not be an appropriate data source to assess risk on a jurisdictional level. The World Bank’s Country Policy and Institutional Assessment (CPIA) contains a series of 16 measures on countries’ performance in four clusters: economic management, structural policies, policies for social inclusion and equity, and public sector management and institutions.
This dataset contains several useful indices on gender equality, environmental sustainability, corruption in the public sector and country fragility. The fragility of a state can also be quantified using the Fragile States Index (FSI), developed by the Fund For Peace (FFP).

Gender Some further useful indicators of gender-related impacts are the Gender Development Index (GDI) and the Gender Inequality Index (GII), which are both developed by UNDP. The GDI measures gender gaps in human development achievements by accounting for disparities between women and men in life expectancy, education, and living standards. The GII measures gender inequalities in three important aspects of human development: reproductive health, empowerment, and economic status.

Labour issues At least one SB addresses workers’ rights in their risk assessment tools by using UNDP’s Human Development Index (HDI) and the Inequality-adjusted Human Development Index (IHDI). Both indices focus on life expectancy, education, and living standards, but the IHDI is distribution-sensitive, while the HDI isn’t. The International Trade Union Confederation (ITUC) Global Rights Index has also been reported to be useful for identifying workers’ rights violations on a country-level. Noteworthy in this context is the Employing Workers Index (EWI), developed by the World Bank, which compares countries in the degree to which they regulate the labour market. This index has been criticised since countries not abiding by fundamental rights still score well as long as labour regulation is limited. This index is thus not recommended as a tool for assessing workers’ rights violations.

Environmental impacts Environmental risk indices seem to be less common than socio-economic risk indices. One example is Yale University’s Environmental Performance Index (EPI), which is used by several of our respondents. The EPI is based upon 20 risk indicators covering air quality, water and sanitation, health
impacts, water resources, agriculture, forests, fisheries, biodiversity and habitat, and climate and energy.

Companies often rely on private-sector providers to develop geographical risk indices. One of the most widely known companies in this area is Verisk Maplecroft, which has a portfolio of 150 risk indices, quantifying political, economic, human rights and environmental risk on a country level across the globe. The companies we interviewed perceive the Maplecroft indicators as easy to use and based upon extensive expertise. One of the main disadvantages of the Maplecroft indicators is that they are not freely available. One of our respondents also mentioned a limitation of the Maplecroft indicators being that there are too many of them, and it can be difficult to combine them in one overall indicator, as they tend to level each other out.

Alternatively, organisations may develop their own risk indices, often for assessing risk at country level, based on a collection of individual indices such as those mentioned above for environmental, social and political risk which are selected to respond to the organisation’s priority risk areas. One standards body in agriculture is developing regional risk indicators using World Bank indices with the intention of guiding the focus of audits.

Although risk indices are widely used by organisations across the different sector areas it is not known to what extent they are effective indicators of high-risk negative impacts. Several respondents highlighted that geographical indices are often too coarse scale to be useful, particularly for large countries with considerable differences between individual jurisdictions. In those cases, sub-national indices might thus be more useful. Although it is not advisable to use them in isolation, geographical risk indicators can be a useful first filter, or they can be combined with other pieces of information to put together a risk profile of an area, an organisation, or a product or sector.

b. Reports

Organisations, particularly private sector companies, rely heavily on reports to assess and quantify risks. Large operations have their own assessment departments, but commonly refer to external sources of reports such as governments, NGOs, international organisations and research institutes. Credible academic, governmental, and non-governmental reports are in general considered as an effective and objective source of information to identify high-risk issues and they are, according to one of our respondents, “excellent at framing the issues we have discovered in a larger context”. Specialist organisation such as Verité, UL and the Fair Labor Association may be commissioned to carry out assessments of a particular sector, geographical location or risk area, and are often more qualitative and investigative in nature than the broader risk reports mentioned above.

Several respondents are concerned that reports produced by NGOs tend to be narrowly focused or draw conclusions on environmental and social risks from a small sample. Indeed, NGOs may be less empirical than other potential data sources, in terms of the methodology that they use to gather data and in terms of how they select the specific issues or impacts that they highlight in campaigns.
One representative from a fisheries body commented in an interview that he fears risk tools and fish lists, while easy to use, may be biased or skewed by NGO reports. On the other hand, through connections to locally active organisations, NGOs are often sources of accurate, up-to-date qualitative information on sustainability issues which is otherwise not available through more formal channels.

c. Datasets and databases

There is a wide variety of publicly available datasets and databases that are being used in risk assessments. Most useful datasets focus on country- or species-information, or on risks related to specific products sourced from specific geographical areas.

Information for geographical risk indicators

Some databases provide useful information on geographical areas. The Food and Agriculture Organisation’s FAOSTAT database collects data on the forested area and annual net forest conversion of countries (as well as other data useful for agricultural risk indicators). An issue with the FAOSTAT database is that the data is self-reported by countries, and that it might thus be collected in different ways, which complicates comparison. Another, more general, problem with country-level datasets is their coarse scale, which lowers their effectiveness for risk assessment purposes. To assist organisations assess deforestation risk, Global Forest Watch (GFW) tries to address both problems by collecting information on tree cover and tree cover loss at jurisdictional level. The data, however, is based upon spectral reflectance instead of land-use information, and a high tree cover does not always represent forest.

Another example of country risk information is the NEPCon forestry risk profiles, which collect an overview of facts and figures related to the forestry sector for a number of important timber-exporting countries. The NEPCon country risk profiles themselves are based upon risk indices (e.g. CPI) and some country-specific characteristics.

Some databases also focus on country-related social risks. The Uppsala Conflict Data Program, for example, has recorded ongoing violent conflicts since the 1970s, and The Land Matrix collects information on land grabbing.

Species or products lists are mainly used by the forestry sector. The CITES (Convention on International Trade of Endangered Species) list is often mentioned as a useful source of information for identifying risks related to species.

Product-origin information

In some cases, the sustainability or ethical threats associated with a specific product are related not only to the product itself, but also to the origin where the product is sourced from. For example, the stock of a specific fish species might be threatened in one location, while it is still in a good condition somewhere else. In the framework of this study, this kind of data is called ‘product-origin information’.
**GMAP** (the Global Map of Environmental and Social Risks in Agro-Commodity Production) is a high-level product-origin information tool which is used in the financial sector. It provides an evaluation of environmental and social risks associated with individual agricultural commodities in individual countries. The risk indicators are aligned with the Performance Standards from the IFC (International Finance Corporation). GMAP is a useful tool to use in an early stage of risk assessments, as it can give high-level risk-related information.

The seafood sector makes widely use of more detailed product-origin information. There are several freely available tools that assign a risk score to products based on a combination of species, origin (habitat), and capture method. Notable examples are the **RASS** tool (developed by the UK Sea Fish Industry Authority), the **Good Fish Guide** (developed by the Marine Conservation Society), the **Seafood Watch Program** (developed by Monterey Bay Aquarium), and **FishSource** (developed by the Sustainable Fisheries Partnership).

One of the main criticisms of the seafood product-origin information sources is that there are too many of them, and that users are not always sure which of these tools they should use. The abundance of these tools might even be counter-effective, as some companies consider ‘sustainable sources’ as sources that have a low risk score for at least one of the tools. Some private companies also indicated that they do not always consider these tools as being based upon scientific results, or do not fully agree with their risk scoring system and are therefore not using them. Caveen et al. (2017) argue that the recommendations from NGOs are often underpinned by assumptions based on the NGOs’ environmental philosophy (rather than evidence), and that this may not always be explicit for the user.

Product-origin information is also being used for quantifying risk in the forestry sector. For example, **EUTR** and the **Lacey Act** collect useful information on the threats associated with the origin of certain timber species, which is being used by several of the interviewed organisations. Another useful source of information is the **United States Department of Labor**, which publishes lists of goods which are believed to be produced by child labour or forced labour in violation of international standards along with their source countries (these lists are one of the sources of information for the GMAP tool mentioned above).

Some of the datasets and databases that are discussed above rely on scientific data. The fishery sector, for example, makes heavy use of science-based information for the assessment of risks. Practically all the information regarding the sustainability of harvesting levels and the depletion of fish stocks is based upon science-based approaches, with a central body – the International Council for the Exploration of the Sea (ICES) – particularly active in collecting this kind of information. In general, these information sources are considered as trustworthy and of critical importance for assessing risk.

It is surprising that the forestry sector, which is also an extractive industry based upon the harvest of ‘wild’ species, is not using similar methods to assess the sustainability of harvest intensities, according to our review. Product-origin tools in the forestry industry concentrate on the legality of the harvested species (e.g. the EUTR and Lacey Act) rather than on sustainable harvest levels.

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**Figure 12.** RASS was developed by an industry body, Seafish. Risks are quantified on a five-point scale and statistical modelling is used for some indicators. [www.seafish.org.uk/rass/](http://www.seafish.org.uk/rass/)

“Producer characteristics can be an excellent indicator of risk”
Databases for social risk

Although GMAP and FishSource give some indication of the risk for violation of human rights, most of the product-origin information tools were not specifically developed to identify social risks. In the fisheries sector, this gap will soon be addressed by the Sustainable Fisheries Partnership (SFP), which is developing with partners a simple risk assessment tool that can be used to assess human rights risks down to the fishery level. It is reported that stakeholders have requested one over-arching tool for addressing social risks, as they want to avoid a similar abundance as for the tools focusing on environmental risk.

d. Supplier or certificate holder data

Another type of data used for assessing risk is information concerning the supplier or certificate holder. This may be information on the size of company or cooperation, organisational structure, production methods, whether the producer has implemented certain policies or procurement systems, whether the company works with subcontractors, and so forth. Organisations use characteristics of producers to prioritise those which pose the highest sustainability and ethical risks. The retailer Arcadia Group, for example, selected suppliers in Mauritius for site assessments based on the high number of migrant workers they employed.3 Several of our respondents also used the organisational structure of a company or producer group, and the way that information is being shared within the organisation, as an inherent indicator of risk.

This technique overlaps with the ‘Certification audits and site assessments’ approach above, as audit reports are a good source of information on producers. Information on suppliers or certificate holders can also be acquired through self-reporting tools (e.g. questionnaires or Sedex-like reporting platforms) or by engaging with the company of interest, which links to the ‘Supplier engagement’ approach discussed below. Supplier or certificate holder data is of course also being used for quantifying risk by self-assessment methods, which is here considered as a separate risk assessment strategy (see Section 5.5).

5.3 Complaints and incident assessments

Key points:
- Can be a valuable component of a risk assessment strategy and one which may already be available as part of a certification scheme
- Analysis required before information can be used effectively
- Measures to feed results to companies may be needed

This approach involves putting in places system to capture complaints and feedback from incidents which suggest unsustainable or unethical practices, or which suggest poor performance by auditors.

Complaints and incident assessments are mainly used by standards bodies to identify risks associated with suppliers (Figure 13). An example is the requirement for certified suppliers to conduct a due diligence assessment whenever a complaint is received about a forest source in the PEFC system described in Section 3(b) above. In most cases, a complaint procedure is an integral part of the

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3 https://www.arcadiagroup.co.uk/fashionfootprint/our-products/Ethical%20Trading.
certification scheme; indeed, several bodies mentioned that their complaints procedures are crucial to assure the integrity of their system.

One respondent suggested that there needs to be better transmission or complaints and incident information from SABs to companies in the supply chain. That being said, several private sector organisations have set up alert systems of their own to capture complaints, allegations and news events relating to particular suppliers or sectors, and there is no reason why this could not be used to monitor risks in particular geographical areas.

Several respondents highlighted some fundamental problems with complaints procedures. Complaints concerning producers or auditors are often related with a lot of ‘noise’ (false positives), and when receiving a complaint, the SAB always needs to collect further information before undertaking action. According to one respondent this reactive approach, although crucial for the system, often “results in ‘fire-fighting’, without any structural improvement of the system itself”.

Another problem with complaints is that they can be biased as there are several barriers for stakeholders to raise complaints. Accreditation Services International (ASI), is trying to address this issue by broadening the complaints procedure to a system in which all kinds of information are captured. Besides the usual complaints, media and NGO reports, non-conformities, stakeholder input, or other data, is integrated in the analysis. This information can reveal information on certificate holders, specific regions, or elements of the scheme that are exposed to risk, and might thus improve the system structurally than a traditional complaints procedure.

According to one standards body which is piloting ASI’s incident assessment tool, the tool is promising, but should be adjusted to be really of use for certification schemes. At this point the tool identifies risk among certification bodies (CBs), but ideally, the collected information should trickle down to the production unit itself. Indeed, when the CB is at risk for non-compliance, the production unit might also be exposed to higher risk.

Box 4. Example of stakeholder consultation on forced labour

In the beginning of 2016, the Consumer Goods Forum announced a new resolution to fight forced labour throughout global supply chains. The resolution envisages an approach tailored to key issues linked to selected geographies and commodities. The three greatest risk areas – passport retention, withholding of wages, and recruitment fees – were identified based upon internal working groups with CGF member companies and stakeholder consultation process with the ILO, academics and international organisations. The identification of high-risk geographical areas was done using a similar approach of consultation and feedback.

5.4 Stakeholder consultations

Key points:
- A way to quickly identify pressing issues in a sector
- Oversight is needed to ensure all potential risk areas are covered
- Private companies are open to sharing among peers

Stakeholder consultations are used to identify high-risk threats associated with specific products or suppliers but most often, geographical areas (Figure 11). Stakeholders are often a very useful source of information and intelligence for risk assessments, and are consulted through a range of channels by many organisations. While SABs will typically consult NGOs (for environmental and social risks) and trade unions (for labour-related risks), buying corporations, especially in the apparel and agricultural sectors, will also reach out to peers to acquire information on sustainability or ethical risks. Industry bodies are well positioned to coordinate pre-competitive discussions among companies. One of the fisheries professionals that we consulted explained that his company consults scientists among others in a round of stakeholder consultation carried out to inform the development of any new sustainability policies.

Organisations make use of multi-stakeholder workshops or meetings to identify the sustainability issues that are associated with a country where they want to expand operations. Stakeholders are also consulted to learn more about the risks associated with specific products, or when developing or revising the standards for specific species or crops. These kinds of approaches seem to be highly effective to identify risk factors at a higher geographical or sectoral level. However, one of our respondents indicated that guidance and oversight by the SAB for these kinds of processes is crucial, as not all the potential threats might be identified by the working group. Increasingly, organisations are using stakeholder consultation to guide, and obtain endorsement of, strategies on a particular issue. For example, Nestlé recently conducted a stakeholder consultation process in the area of modern slavery and human trafficking, convening a stakeholder conference in Washington, D.C. to prioritise issues from a list identified through the companies’ internal risk assessment framework.

5.5 Self-assessments and internal audits

Key points:
- Cost-effective, and technology is widening use of tools and resulting data
- Transformative potential of raising producers’ awareness of sustainability risks in their own operations
- Most common in agriculture and among standards bodies

This approach involves producers such as farmers’ group leaders or factory managers conducting an internal assessment of risks in their own practices. It can also be used to gather information from suppliers downstream from production, but the distinction between this approach and the use of self-reported supplier information discussed in section 5.2 above is that here, the producer or supplier explicitly follows a risk assessment methodology to gather data. The results are

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typically relayed to an auditing body or buyer and used by them to decide on the type and scope of further action. In some sectors, platforms have been developed for producer self-assessment results to be made available to all current or potential buyers for purposes of risk assessment and screening.

As Figures 6 and 7 above indicate, this approach to risk assessment is practised more often by standards bodies than the private sector, and is especially well established in agriculture.

Typically, the producers or suppliers are given guidance for how to carry out the internal assessments or audits, such as a checklist of risk areas which is drawn from the certification standard or buyer’s sourcing requirements. The Fairtrade Producer Standard for Small Producers includes a requirement for certified producers to “identify which requirements in the [standard] you and your members may be at risk of not complying with” every three years as a minimum. They must assess risk against the requirements in the production standard, but are free to design their own procedures for conducting the self-assessments. One such method suggested by Fairtrade is for the producers’ organisation to conduct participatory mapping to identify high-risk areas in certain villages. The UTZ system uses farmer self-assessment as a tool of context-specific continuous improvement and to help uncertified farmers to identify and reduce risks and reach minimum requirements for certification. Farmers must annually assess risks related to management, farming practices, working conditions and the environment, using a loosely designed UTZ risk assessment tool and template for recording results.

Increasingly, producers are offered online tools for recording and uploading their results. The Farm Sustainability Assessment tool developed by SAI Platform is one such example, whereby companies may invite farmers in their supply chain to conduct an assessment of their farming practices using an online or downloadable form. Participating farmers are not certified or audited, but gain an assessment score to communicate to buyers. There is potential for electronic self-assessment data to be georeferenced and used in geospatial risk assessment (see Section 5.7 below), which is the vision of the Bluenumbe initiative.

Other sectors are also using self-assessment tools. The Higg Index (see Box 5), for example, is a well-known tool in the apparel sector; while factories may use the Sedex Self-Assessment Questionnaire and upload the results to the Sedex platform for buyers in their supply chain to view. Intended for land-extensive sectors such as mining and infrastructure as well as large-scale agriculture and forestry, the IAN:Diligence toolkits, developed by TMP Systems with support from United Kingdom’s Department for International Development and the Rights and Resources Initiative, help companies to assess operational risks related to land tenure and land conflict, and offer advice on how to mitigate them.

Standards bodies use producer self-assessment in combination with assessment of geographical risk to inform the frequency or the scope of a surveillance audit or

site assessment. Self-assessment may also be used by the supplier or certificate holder themselves to learn more about the areas at risk within their systems. Results of self-assessments or internal audits may guide the development of action plans to mitigate the risks identified. And although they are currently only used to evaluate supplier risk (Figure 12), just as with audit data there is the potential for organisations to conduct systematic reviews of accumulated self-assessment data to identify risk trends in an entire sector or geographical area – something which one agricultural production company is now doing, using self-assessment information from cooperative members.

Few of the organisations reviewed for this study reported that self-assessment was the most effective risk assessment approach that they use, and it does have limitations – not least the inherent limitation that the body conducting the assessment is the producer themselves. One of our respondents found that self-assessments are in general much more accurate in countries with a low risk for corruption than in countries with a high risk for corruption. A measure that can be taken to increase the reliability of self-assessment results is to conduct a third-party check of a sample of respondents. A few organisations use the discrepancies between self-assessment results and subsequent verification audit observations as a risk assessment strategy in itself.

Despite these limitations, however, self-assessment and internal auditing is clearly being widely used to decide on the auditing and engagement strategy for producers by standards bodies and private-sector buyers alike. Overall, self-assessments are a highly cost-effective way of conducting a preliminary screening or analysis of risk areas, particularly for long supply chains or very large supply bases. Self-assessment offers the additional benefit of being participatory, by requiring producers to identify for themselves where their most unsustainable practices lie, and therefore has the potential to have a transformative effect among producers over the long term.

**Box 5. The Higg Index**

The Higg Index was developed by the Sustainable Apparel Coalition and is widely used in the apparel industry. It comprises a number of online tools or ‘modules’ for factories to assess environmental threats, such as chemical use, and social and labour aspects. The tools generate standardized performance scores that can be shared with current and future supply chain partners. Scores are anonymized and aggregated, which allows businesses to benchmark their results against the industry and serves as a powerful incentive to strive for greater improvements and raise the sustainability bar. The fashion retailer H&M, for example, has introduced a Sustainability Index for grading its supplier factories which uses the Higg Index.

5.6 Supplier engagement

Key points:
- An effective approach used by buyers in a supply chain
- Not easy to scale up; techniques vary in degree of formality
- Emerging tools to engage with members inside an organisation

Some private sector organisations reported that they engage with suppliers or producers to identify risks associated with their production practices and geographical context (Figure 13).

This approach can be relatively informal, using discussions to assess the supplier’s attitude towards sustainability, which some organisations consider as a risk indicator. Or, organisations may use more formal approaches, such as requesting suppliers to fill in questionnaires about their sustainability policies or traceability. Building up a good working relationship is considered by some of the respondents to be a good strategy to mitigate, but also to identify, supplier risk. When the approach is tackled in a collaborative way with the intention to raise standards rather than penalise suppliers, buying companies can work with producers at a cross-sectoral or jurisdictional level to identify common risk areas and perhaps assess if there are risks which suppliers alone will be unable to address. It may not be easy to scale up, but the few organisations that use supplier engagement as a risk assessment strategy were all very positive about this approach.

This approach also combines easily with other risk assessment approaches. For example, it may lead to a more regimented system of supplier self-assessment; or information provided by the supplier can be verified with desk-based tools. The fisheries sector, for example, uses DNA-based traceability tests to detect product mislabelling, which seems to be a very effective (and relatively inexpensive) technique to identify fraud in supply chains. It might be worth to explore similar techniques in other sectors as well.

So far we have considered “supplier” to mean the management of the supplying organisation, such as a factory or fishing fleet. However, there is scope for organisations to engage directly or indirectly with other employees in order to gauge sustainability risks in practice. Jennifer Schappert of the OECD has suggested that workers’ unions could be used to identify risks and trigger audits:

“Within the apparel supply chain, workers’ representatives could act as an on-the-ground monitoring mechanism to trigger third-party inspections by multi-stakeholder initiatives. Such a process would potentially reduce the duplication of broad social audits and facilitate the targeting of technical assessments to specific risks.”

Also in the area of labour-related risks, a number of tools such as voice tools have been developed for workers to report labour rights abuses and identify good and bad employers.

Figure 17. Risk types identified by using supplier engagement. In total, the use of supplier engagement was reported 12 times.

5.7 Geospatial risk assessments

Key points:
- Requires skill and good quality data
- Efforts needed to mainstream and assess value of social tools
- Can support more contextual approaches to risk at sub-country level

Geospatial risk assessments are an emerging type of risk assessment tool. They make use of various kinds of spatially available data such as remote sensing imagery, land use databases and geospatially available conflict datasets. Geospatial risk tools can be zoomed and tailored to the specific area of interest, which is why they are here considered as a different type of risk assessment tool than the desk-based risk assessment approach mentioned above.

Geospatial risk tools are a very powerful and effective way of identifying geographical risks, and with the increase in the availability of remote sensing and spatially available data, it can be expected that these tools are going to be more widely used in the near future. The ‘product-origin’ risk type shown in Figure 14 refers to risk factors which are combination of location and product, such as a specific fish or timber species coming from a specific location.

a. Environmental risks

Given the nature of the data that is captured by satellite imagery, geospatial risk assessment tools are mainly used for detecting environmental risks such as deforestation, peatland destruction and encroachment in protected areas. Most spatial data products are remote sensing images that are processed by an external party. Numerous data layers are being used, and each of these datasets focuses on one or more risk indicators. Some data layers that are widely used in risk approaches are the Hansen tree cover and tree cover loss layer, the Forest Monitoring for Action (FORMA) layer (alerting near real-time tree cover loss, developed by WRI), and the Indonesia peat land layer. These layers (and many more) can be accessed via the Global Forest Watch (GFW) data portal (www.globalforestwatch.org).

One of the best-known examples of a freely available geospatial risk tool is GFW’s PALM Tool, which assesses the environmental risks associated with palm oil mills. Another geospatial risk tool developed by an SB are the Roundtable on Responsible Soy’s maps for Brazil, Paraguay and Argentina. These are zoning tools aiming at guiding responsible soy production by identifying areas of greater significance for biodiversity, where stakeholders agree there should not be any conversion, and by describing areas of possible expansion over already consolidated areas.

b. Social risks

Spatial information on social phenomena is much less available, and one of the major challenges in the field of geospatial risk assessment tools is integrating social risks. However, there are some geospatial data sources on social issues available. The ACLED (Armed Conflict Location & Event Database) project collects geotagged conflict data and contains similar information to the Uppsala Conflict Data Program. Recently published is the IAN Risk tool, which is a freely available
tool to identify land tenure risks. Another useful geospatial database is the Grided Population of the World (GPW) dataset, which collects population counts and population density across the globe.

An alternative approach, where social risk data is collected from surveys and combined with geospatial data, is described in Box 6.

An emerging and exciting new source of data on social issues is collected by machine learning databases. The GDELT project, for example, is a machine learning database collecting real-time geotagged data on social issues by monitoring broadcast, print, and web news from nearly every corner of every country in over 100 languages. Machine learning databases are extremely powerful, but according to one of our respondents their information is in many cases rather crude, and should be triangulated with other sources of information.

c. Experiences in using geospatial risk assessments

The usefulness of spatial data is highly dependent on the layer itself and the application for which it is being used. Important aspects are spatial resolution (ground resolution) and temporal resolution (on which time basis the data layer is updated). One of our respondents highlighted that freely available data on deforestation was often not up-to-date enough for the purposes they wanted to use it for, and decided to spend money on more recent spatial data. When working with spatial data, it is also important to have a good understanding of the methods that are used to derive the final product from the raw dataset(s) in order to be able to interpret the usefulness of the layer.

A noteworthy challenge of geospatial risk tools is their technical complexity. Most organisations do not have the technical skills to do these kinds of assessments in-house, and are dependent on expensive consultants or off-the-shelf freely available tools (e.g. GFW’s PALM tool), which are often not tailored to their specific needs.

Despite these challenges, geospatial tools offer the advantage of flexibility of scale. While most organisations’ assessment of geographical risk is being done at the national level using national indicators (see Figure 19), some organisations are making use of more micro-level assessments, which could be a promising approach which others could use (this is discussed more in the Analysis section below). Geospatial tools could help to generate sub-national-level risk data to support these approaches.

![Box 6. HCV probability maps as a tool for smallholders](image)

On behalf of the Roundtable on Sustainable Palm Oil, the High Conservation Value Resource Network (HCVRN), Proforest, Daemeter, and WRI are developing a Simplified HCV Approach for oil palm smallholders. This risk-based approach aims to simplify HCV assessments by using a combination of geospatial risk maps of forest, protected area and peatland for assessing HCVs 1-3 with basic survey questions concerning the social HCVs 5-6. Based on the findings, smallholders that are in ‘low risk’ areas will be able to apply a much quicker and easier HCV assessment for new plantings under the RSPO certification scheme, thereby increasing the adoption of the scheme by small producers.

![Example of a HCV risk map. Red areas indicate high risk, orange medium risk, and yellow low risk for the presence of HCVs 1-3.](image)

**Figure 19. Geographical scales considered in risk-based approaches of SBAs (left) and private sector organisations (right).** Sample: 12 SBAs and 10 private-sector organisations; respondents could select more than one.
6 Analysis

6.1 Benefits of using risk assessment approaches

As a whole, standards and accreditation bodies are still learning what the benefits are from incorporating risk assessment approaches into their processes and ways of working. One observed advantage is that it helps SABs to increase the accuracy of audits and focus the scope of efforts. It also helps them to quality-check certification bodies and audit findings in a more targeted and cost-effective way.

More broadly, risk identification strategies can be extremely valuable given the dynamic nature of many sustainability standards today. Many schemes are not static benchmarks but rather, normative processes which are aimed at raising standards of performance over time. In this context, risk work can help SABs to monitor producer performance, decide on the frequency of surveillance visits and other interventions, target areas for capacity-building and identify emerging risks to incorporate in revisions to their standards. This applies organisationally, too: a representative of one sustainability body which is relatively advanced in the use of risk commented that both a benefit and a challenge of risk-based approaches is that they force an organisation to constantly evaluate its processes and try to improve them.

These principles equally apply to private sector organisations, many of whose sustainability policies are not merely time-bound requirements but commitments to work on continuous improvement over time. Companies report that using risk-based approaches helps to make their risk mitigation interventions more effective, by informing supplier monitoring and capacity-building and channelling resources to the sustainability areas where they are most needed. There is a range of further benefits, including guiding strategy and procurement decisions and pushing organisations to collaborate more with knowledge-holders and stakeholders. When asked how risk-based approaches benefit his organisation, a representative of a consumer goods multinational replied, “By improving understanding of risks, by improving design of interventions so they are effective, and by helping identifying platforms where we can work with others.”

An important aspect which influences the value to an organisation of using risk assessment strategies is the organisations’ capacity in this area. This includes, for example, the extent to which the organisation has internal experts who can provide insight and data on risks in a location or sector, and advise on which external consultancies to work with. Additionally, it is important for a buying company to have good links between procurement teams and the sustainability department or whichever other team is working on risk assessments. This allows for the findings of risk assessments to be translated into procurement decisions and supplier relationship management, but also, conversely, for market intelligence of procurement colleagues to be incorporated into risk assessment. Similarly, one company from the seafood sector mentioned the need to be more structured and systematic in sharing risk findings within the organisation, among their facilities. As we discuss below, lack of capacity has proved a challenge both to private sector organisations and to SABs wishing to build effective risk approaches.
6.2 Best practice: the most effective risk assessment approaches

Box 7 proposes some areas of strength in risk assessment which our study identified for individual sectors and types of organisation. It may present an opportunity for organisations to share best practices and learnings across industry divisions.

Some of the ways in which SABs are using risk assessment seem to be more appropriate to improve the **effectiveness of their systems**, while others might be more useful for improving **credibility and assurance**. Approaches that are informing audit frequency and coverage, for example, might be extremely effective at reducing the overall costs of the certification system, while risk identification techniques that can inform revisions of a standard or reduce auditor risk might mainly be useful for increasing the system’s assurance. Taking into account that SABs are mainly looking for ways to increase their efficiency, it seems to be important to identify those approaches that generate the largest effect in this regard.

However, standards and private companies are still experimenting with risk assessment strategies, and in most cases these approaches have only recently been implemented in assurance systems or are still under development. During our review, it became clear that **systematic information on the effectiveness of risk-based approaches is largely lacking**, and that there is a clear need for collecting more data on this issue. In the following paragraphs, we present some general guidance on the risk identification process, and some anecdotal data on the effectiveness of risk assessment approaches and data sources.

**Box 7. Areas of strength in risk-based approaches by sector and by organisation type**

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td><strong>Standards and accreditation bodies</strong></td>
</tr>
<tr>
<td>Producer self-assessment tools</td>
<td>o Using risk-based approaches to inform audit sampling and scope</td>
</tr>
<tr>
<td>Geospatial risk tools and factors (including subnational)</td>
<td>o Analysis of factors determining auditor reliability</td>
</tr>
<tr>
<td>Assessing environmental risks</td>
<td>o Incorporating complaints and grievance data as risk indicators</td>
</tr>
<tr>
<td><strong>Apparel</strong></td>
<td>o Stakeholder consultation</td>
</tr>
<tr>
<td>Assessing labour-related risks</td>
<td>o Assessing supplier and sector risk</td>
</tr>
<tr>
<td>Qualitative methods</td>
<td><strong>Corporations and financial institutions</strong></td>
</tr>
<tr>
<td>Factory self-assessment tools</td>
<td>o Building internal risk management capacity</td>
</tr>
<tr>
<td>Industry collaboration through forums and information-exchange platforms</td>
<td>o Responding swiftly to events and risk trends</td>
</tr>
<tr>
<td><strong>Fisheries</strong></td>
<td>o Using technical desk-based sources such as indices and geospatial data</td>
</tr>
<tr>
<td>Making use of scientific and academic data sources</td>
<td>o Making use of NGO reports</td>
</tr>
<tr>
<td>Industry collaboration and stakeholder consultation</td>
<td><strong>Forestry</strong></td>
</tr>
<tr>
<td>Development of geospatial tools</td>
<td>o Assessing financial sustainability, corruption and compliance risk</td>
</tr>
<tr>
<td><strong>Forestry</strong></td>
<td>o Assessing country risk</td>
</tr>
<tr>
<td>Incorporating legality risk</td>
<td>o Assessing risks related to indigenous peoples’ rights</td>
</tr>
<tr>
<td>Using traceability and species data</td>
<td></td>
</tr>
<tr>
<td>Self-assessment and due diligence approaches, including among downstream supply-chain actors</td>
<td></td>
</tr>
<tr>
<td>Assessing risks related to indigenous peoples’ rights</td>
<td></td>
</tr>
</tbody>
</table>
a. The risk identification process: taking an iterative approach

Although its approach is focused on avoiding illegal timber in supply chains, NEPCon gives some good overall guidance for risk assessment (and risk mitigation) strategies. In a recent study, NEPCon (2016) recommends that **risk identification processes should be iterative**; meaning that, when a certain risk is observed and it is decided that it is not a negligible risk, further action is required. More information should then be collected to specify the risk, and the risk should be mitigated. As all non-negligible risk needs to be mitigated, the NEPCon study authors do not consider a further categorisation of risk levels (e.g. ‘medium’ or ‘high’ risk) as being useful for the process. The effectiveness of the risk mitigating measures should be assessed by collecting more information, after which the process starts all over again.

One of our respondents also suggested that risk assessments should be an iterative process. He advocated the idea of starting the risk identification with relatively affordable desk-based and/or geospatial assessments. When these studies indicate the (possible) presence of non-negligible risks, engagement with stakeholders that could be affected by the suppliers’ operations or projects – which is generally a more expensive risk assessment approach – should be sought. If the organisation in question does not have the in-house expertise to do this itself, independent experts should be consulted.

Most corporations that we interviewed follow in broad lines an iterative process to identify risks among suppliers. Country, sector or product risk profiles, generally put together based on relatively inexpensive desk-based studies or stakeholder consultations, are in most cases a first step in risk assessment. The corporations then identify priorities or areas of highest risk by using supplier or subnational geographical risk factors to drill down, perhaps by drawing on desk-based information or supplier self-assessments or by carrying out geospatial risk assessments to put together a more ‘zoomed in’ geographical risk profile. When the risks are not negligible after this second step, the organisation can then use more resource-intensive methods such as engaging with individual suppliers or visiting them on site to confirm presence of risk and begin efforts in risk mitigation. This process resembles an inverse pyramid – yet while identifying individual high-risk suppliers may seem to be the ultimate goal, **many corporations are now judging that it may be more effective to work at a higher landscape or jurisdictional level** and to use their assessment resources to prepare for risk mitigation at that level. Although any ensuing supplier engagement and mitigation work may be an ongoing process, the risk assessment approach itself is iterative, often linked to annual review of supply volumes and changes in the supply base and setting of Key Performance Indicators (KPIs). An example is the approach to responsible sourcing developed by Proforest for companies sourcing agricultural and forestry commodities, which combines supply chain mapping and a prioritisation process for determining initial risk for all suppliers and then carrying out further analysis of high-risk suppliers through desk work, intelligence-gathering, supplier engagement and site assessments (Proforest 2016).

Many standards bodies are also using cyclical processes but they are often on separate tracks: one, using risk assessment following the same inverse pyramid approach to identify high-risk producers (and perhaps also high-risk auditors) and
adjust audit regimes, monitoring and evaluation and improvement programmes accordingly in an ongoing feedback loop; and another, using risk assessment at a wider scale to set priorities for the organisation and guide revisions to their standards. Standards bodies do use data from the audit process to inform this latter strategic work to some extent, but there may be potential for their risk-based approaches to become more effective by strengthening the links between producer compliance and standard-setting.

While the iterative approach seems to be a useful and cost-effective framework for risk identification, it must be taken into consideration that some producers with high-risk practices might not be identified if they are in a low-risk geographical area or supply low-risk products. This limitation was highlighted by one of our respondents, who noted that many suppliers, although being in relatively low-risk locations such as the UK, would actually be at risk of not following best practices around labour and other aspects of social sustainability.

Another potential pitfall to be aware of, noted by some of our respondents, is that if risk indices or indicators are aggregated to produce one overall risk score, there is a risk that individual risk factors would level each other out. For example, a supplier that has a high risk score for social issues but seems to be performing very well from an environmental perspective will have an average overall risk score if the individual scores are simply added up. This additionality principle should be kept in mind when aggregating risk scores, and it might be a better approach to capture thresholds for individual risk areas in the overall indicator; for example, when a certain threshold for a risk indicator is reached, the aggregated risk indicator flags up a warning, independently of the scoring in other risk areas.

To conclude, one effective approach seems to be to use relatively inexpensive desk-based, stakeholder consultation and/or geospatial approaches to identify risks on a geographical, sector/product and supplier level in parallel. Information from different sources or scales can be used to triangulate findings, and each risk area should be considered individually instead of aggregating risk scores. If one of these approaches flags up a warning, more information regarding the supplier that is possibly at risk could then be collected by means of more costly verification or engagement strategies. A clear lesson is that effective approaches use a combination of methods and data sources to assess different types of risk at different stages of an organisation’s journey.

b. The most useful data sources on risk

Bearing in mind our sample of organisations is small, our review suggests SABs judge stakeholders and audits as the most valuable sources of information for assessing risk, while private-sector organisations value certification audit results, data gathered from their own on-site assessments and high-quality reports.

**Primary data from audits and site assessments**

Note that both types of organisation highlighted second- or third-party site-based assessments as one of the most effective sources of data to identify risks. However, private-sector buyers cannot rely on certification audits having been conducted throughout their supply base, and not only is commissioning their own
verifications not very cost-efficient, it is in most cases practically unfeasible to visit
every individual supplier – and physically challenging, too, in the case of fisheries
buyers attempting to conduct assessments at sea. SABs must also restrict the
number, frequency and scope of audits, and there is call on them to consider risks
among producers, often small-scale, who currently lie beyond certification.

Therefore, **there is a need to identify ways to use data from audits more widely
and to identify alternative sources of data with predictive power.** In particular, it
would be useful to compare findings about a particular sustainability issue gained
from desk-based quantitative analysis, qualitative consultations with stakeholders
and consideration of aggregated audit reports, non-compliances and complaints.

Effective strategies for getting value from site audits or assessments as a data
source include using exchange platforms to access the results of audits and
conducting analysis of audit data to identify risk trends at a wider sectoral or
geographical level. An approach that might be worth exploring by SABs is to
combine several supplier verifications within a geographical area to reduce the
costs of individual visits, and to target those verifications on risk issues that are
pre-defined using other risk-identification strategies instead of focusing on the
complete standard.

As an alternative to third-party audits, self-assessments or internal audits seem to
be an effective and cost-efficient way of identifying supplier risk. These
approaches, together with producer engagement strategies, are also excellent
tools to create internal risk awareness: a first step towards risk mitigation.

**Desk-based and geospatial sources**

Desk-based analysis can be an effective complement to audits for risk assessment
– but this is highly dependent on the data sources that have been consulted. A
country risk profile can be put together using information obtained from various
sources, such as risk indices or country reports, databases or accumulated audit
information. Risk indices are in general considered as an easy-to-use, but rather
crude measure of risk. As we have seen, in the **private sector indices are often
complemented with information from reports from various sources, which
seems to be an approach worth exploring by SABs.** One of the problems with
reports, however, is that they do not deliver information in a quantitative format,
which may complicate using this kind of information for scaling up risk
identification strategies. Self-reported information seems to be a useful source for
private buyers to identify possible areas of producer risk, and helps to inform the
focus of a field verification.

ASI is developing some promising approaches for identifying risks. The incident
management tool that they are piloting, for example, seems to be more effective
in picking up risks than ‘regular’ complaints strategies, and this approach is
something that other organisations might learn from. Also, relevant to the point
on extracting value from audit above ASI’s work on long-term and large-scale
trends in certification results sound promising, as these kind of data series might
reveal interesting patterns for identifying risks.

Some organisations are making extensive use of geospatial risk assessments to
identify risks on a small geographical scale. These approaches are very promising,
as the availability of spatial information is rapidly growing. Once the system has been set up, geospatial tools are relatively cheap to use. **SABs should thus explore how they can integrate geospatial strategies in their systems.**

**Stakeholders and civil society**

According to our respondents, **multi-stakeholder consultations are often very effective tools for identifying risks**, and we advocate a further adoption of these approaches to identify country- or product-level risk. Stakeholders have in most cases a very thorough knowledge of a certain area, and can put together a much more nuanced picture of the risks that are associated with that area than general indices. **Also effective are sectoral forums** where buyers or SABs come together in a pre-competitive and collaborative space to share information on common sustainability risk areas. This is made easier with the presence of an independent membership body such as the Fair Labor Association or Seafood (or indeed ISEAL) which can represent the sector concerned and gather risk-related data through site assessments or tool development. The experience of organisations in the fisheries sector is instructive: partly because companies are sourcing seafood from a common resource and because some countries have established strong industry bodies funded by levies, there is a traditional in the fisheries sector of substantial collaboration between companies and with external stakeholders on the development of risk-based tools. This is largely a positive, but some respondents from the sector noted that there is a proliferation of tools, data sources and standard from various groups, which can lead to confusion. The bodies that have formed a partnership to develop the new human rights and slavery risk assessment tool for fisheries referred to in Section 5.2 have done so with the explicit intention of having a single tool which can be integrated with existing environmental risk assessment tools in the industry.

Lastly, the study suggests that effective organisations cultivate **strong networks with civil society organisations** as part of their risk assessment approaches. Locally active organisations can often provide accurate and up-to-date information on sustainability risks which is otherwise not available through more formal channels. Larger civil society groups such as specialist NGOs can also provide tailored risk assessment tools and services, and advise on follow-up risk mitigation approaches. While it can be difficult for organisations to determine how to best make use of NGOs’ insight for their risk identification strategies, there is perhaps potential for SABs to engage with NGOs more, whether by consulting NGO reports, commissioning NGOs to assist in field-based risk assessment or including NGOs in their stakeholder consultations.

### 6.3 Challenges in using risk assessment approaches

SABs and organisations reported a range of challenges in using risk identification strategies. A full list of challenges captured by Proforest is given in Table 3. Some of the challenges were identified by members during the ISEAL Risk Management Workshop on 17 November 2016.

For both SABs and private sector organisations, common challenges of using risk identification strategies are accessing **sufficiently accurate and up-to-date data for risk assessments, and meeting the cost**. In addition, SABs often reported the
challenge of **building capacity and technical knowledge**, while the private sector noted **the need to acquire knowledge of certification bodies and their working methods**.

Among the challenges listed in Table 3 and from the consultations with organisations more broadly, it is possible to identify three areas where using greater use of risk assessment can present new dilemmas for organisations working in sustainability.

**The first area is practical.** For example, as mentioned above, both SABs and private sector organisations may struggle to find sources of data which are granular and recent enough to enable them to answer their selected risk indicators. For SBs in particular but also large companies, the cost of accessing proprietary data sources and reports and building internal capacity can be an issue. Organisations are learning from trial and error to balance their use of quantitative and qualitative data sources; and how to balance the number of risk indicators to consider – too few can result in an overly simplistic assessment, too many can be confusing or cancel one another out. One standards body commented that they have been using prior risk identification to narrow the scope of audits but that so far this has not succeeded in focusing the coverage to the extent desired. More guidance and sharing of lessons learned may both be of use here, and there may also be demand for a service which alerts organisations to potential data sources available. At a methodological level, one of the reasons why risk identification is stronger for environmental than social risks in the natural resource sectors (forest, agriculture and fisheries) is that environmental risks are easier to identify at a distance using mapping and geospatial monitoring tools than interpersonal labour and rights-related risks occurring in the workplace.

**The second area of challenge is cultural.** Consulted organisations described the need to accustom auditors in moving from ‘yes/no’ checklists to a more risk-based approach, for example, and the challenges they have sometimes faced in convincing colleagues and stakeholders that risk-based methods are sufficiently credible, such as when shifting from random to risk-based sample selection.

**A third type of challenge thrown up by the increased use of risk-based approaches is for organisations to act on the findings.** Risk assessment is just the start of a process. Organisations must move from the identification of risks in a supply base or area to measuring and, ultimately, mitigating those risks. For some this is a practical challenge – in the seafood sector, for example, buyers want to measure the occurrence of known labour risks on vessels but face the practical difficulty of assessors needing to be on board for weeks at a time. In terms of decision-making, organisations may need to have internal discussions and policies for acting on the results of risk assessments and aligning them with rigid purchasing or certification commitments they may have made. Some organisations make judgements on a high-risk supplier or producer based on a subjective impression of their willingness to change, which may need to be justified internally or even communicated publicly.
Table 3. Challenges in using risk-identification strategies. These challenges were identified during this study, and during the ISEAL Risk Management Workshop.

<table>
<thead>
<tr>
<th>Area</th>
<th>Challenge</th>
</tr>
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<tbody>
<tr>
<td>Data</td>
<td>Data accessibility</td>
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<tr>
<td></td>
<td>Data availability</td>
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<tr>
<td></td>
<td>Getting real-time or up-to-date information</td>
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<tr>
<td></td>
<td>Getting accurate and/or specific data</td>
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<tr>
<td></td>
<td>Gathering, parsing and analysing information from many sources in many forms</td>
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<tr>
<td></td>
<td>Inaccessible audit data</td>
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<tr>
<td>Methodological</td>
<td>Too many indicators</td>
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<tr>
<td></td>
<td>Refinement of risk scoring</td>
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<td></td>
<td>Lack of solid methodology for applying risk</td>
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<td></td>
<td>Lack of information on how to design effective risk-based approach</td>
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<tr>
<td></td>
<td>Validation of risk identification strategies lacking</td>
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<tr>
<td>Internal</td>
<td>Lack of capacity or technical knowledge</td>
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<tr>
<td></td>
<td>Cost</td>
</tr>
<tr>
<td>Implementation</td>
<td>Auditor reluctance to use data</td>
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<tr>
<td></td>
<td>Inconsistency among auditors or certification bodies in identifying risks</td>
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<tr>
<td></td>
<td>Integrating risk-based approach into the certification system</td>
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<tr>
<td></td>
<td>Gaining acceptance of approach by stakeholders</td>
</tr>
<tr>
<td></td>
<td>Getting management or organisational buy-in</td>
</tr>
<tr>
<td></td>
<td>Lack of credibility (&quot;if it implies a reduction of audits it is always understood as a less credible method rather than a more effective one&quot;)</td>
</tr>
<tr>
<td></td>
<td>Credible remote risk-based verification difficult</td>
</tr>
<tr>
<td>Standards</td>
<td>Different regional interpretations of standards</td>
</tr>
<tr>
<td></td>
<td>How to make standards risk-based</td>
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<tr>
<td></td>
<td>Standard not clear</td>
</tr>
<tr>
<td>External</td>
<td>Corruption in the region or country under assessment</td>
</tr>
<tr>
<td></td>
<td>High-risk countries create higher audit burden and cost</td>
</tr>
<tr>
<td></td>
<td>Local norms undermining international standards</td>
</tr>
<tr>
<td></td>
<td>Culture – both organisational and societal</td>
</tr>
</tbody>
</table>
6.4 Emerging trends and conclusion

In this study, we were able to identify some emerging trends in the arena of risk assessments. In the following section, we briefly discuss some of the more interesting of these approaches.

In general, new technology developments offer interesting solutions for risk identification, and we could pick up several trends in this area. The use of geospatial methods for example, with the integration of satellite and other remote sensing data, seems to be an emerging and promising trend in this field. Remote sensing information on all kinds of risk areas is becoming rapidly more accessible for organisations, and some of these products are now updated daily, which offers promising opportunities for the identification of risks. Geospatial methods are also becoming more and more integrated with other techniques, which will increase their user friendliness. For example, there are now systems available that automatically send out an alert to your mobile phone with the location of an event based upon near real-time detected satellite information.

At the other end of the spectrum, technology is being harnessed to develop worker apps and voice tools such as Labour Voices, Good World Solutions’ Labor Link and Ulula’s alerts and grievance tools, providing a means for workers to report abuses, and an anonymous hotline funded by Humanity United for workers in the shrimp industry to use.

Technology will also help to collect, standardize, and communicate information. Self-assessment and reporting systems, for example, if needed supported by GIS and interactive maps, can easily be developed for mobile phones or tablets, which will largely facilitate the collection of data on a large scale and in a standardized way. These systems can also help to communicate findings or risk profiles back to the certificate holder or supplier, thereby creating risk awareness. UTZ is exploring the use of these approaches in their First Mile programme, and Proforest is working on similar tools for assessing the risks of smallholders.

Another trend is a push for open-access data sources on social risk, especially around land tenure and labour rights. This could improve assessment of worker and community issues and expand geospatial methods of assessing social risk beyond corruption and socio-economic factors. Greater access to all kinds of data offers great possibilities for the development of risk identification tools. For example, incident management approaches largely rely on automated tools for picking up all kinds of incident information by screening media and the internet. Also, these kinds of algorithms are now being used to develop machine learning databases as the GDELT system, which are promising for the collection of near-real time data on social risks.

Some other emerging approaches seem to be the compilation of long-term and/or large-scale data series on audit report data and information on grievances and indices, which seems to be a promising trend to perform risk assessments at a geographical or sector level. One organisation that we interviewed mentioned that some data collection efforts for developing risk profiles could be organised more efficiently if certification schemes and private sector companies would collaborate more. For example, it might be possible to

Box 8. The view from the private sector

Some private sector participants called for:

- More information-sharing and collaboration between companies.
- More systematic processes for assessing and comparing quality of certification audit results, including assessing fraud risk.
- Better modelling for complex risks, with involvement of financial or insurance organisations.
- More risk identification and assessment tools for labour and human rights threats, similar to the tools that exist for environmental threats.
share data from a private sector verification with the certification scheme. Indeed there is recognition of the need for collaboration in this area, and organisations are responding by using various forms, from individual stakeholder consultation to the growing popularity of digital platforms for exchanging audit reports and sustainability data. Several representatives of the standards bodies included in the study reported that they learn from other organisations using risk identification strategies – sometimes with expert consultants, in another case with regulatory authorities, in other cases through dialogue with fellow ISEAL members. But there is a clear demand for more cross-sharing and more useful lessons learned to be available. The commissioning of this study by ISEAL, and the willingness of so many organisations to participate and share in the results, are good signs that collaboration in this space can only grow.
7 Bibliography


Annex 1. Methodology

Desk-based reviews and participant identification

In the first step in this research we formed an overview based on literature and in-house expertise of the different types of tools and approaches that are being used to identify risk, both within and outside certification. These reviews were conducted for the four sector areas this research is focusing on. We primarily concentrated on the tools and data sources that are being used by standards bodies (SBs) and large corporations, but we included also risk tools that are developed by financial institutions, accreditation bodies, industry bodies, NGOs, and consultancies to support organisations to identify sustainability and ethical risks in their supply chains.

We also gathered information on risk-based approaches that are being used to assure the quality of auditors and assessors and identify inconsistencies, anomalies, and oversights in auditing practices.

Based on in-house knowledge and on the information that was gathered in the framework of the reviews, we selected a number of organisations that we wanted to contact for the collection of first-hand information. We targeted organisations which are already active and visible in their use of risk-based approaches, in order to learn from and engage with some of the leaders in this field. The organisations fell into two main groups:

- Standards and accreditation bodies (SABs): ISEAL Alliance members and other non-members; and
- Private sector companies: multinational corporations; financial institutions; and industry bodies.

Questionnaires

In the second phase of the study, questionnaires were sent out to the selected organisations to collect first-hand information on the use of various data and tools to identify risk among producers and/or suppliers. The questionnaires were based on the reviews, and included questions on the risk factors used, the methods for risk identification, and on the methods of data-gathering and data management. There was also a section on the pros and cons of the different approaches, and on the challenges and issue around the use of risk assessment tools.

Given their functional differences, we developed one questionnaire that was tailored to private sector organisations, and a second one that was tailored to SBs. Given the operational diversity of the contacted organisations, designing one common survey for each group proved challenging.

Both surveys started with some background on the purpose of this study, followed by a brief explanation of what we considered as risk-based approaches. The respondents were also informed that the information gathered in this survey would be held confidential to the project. The questionnaire then asked about the priority risk areas of the organisation and some questions on how risk assessment tools are being used in their assurance systems. The subsequent section focussed on the different methods that are being used by the organisation to identify risk. Some general questions were also added regarding the

Follow-up emails and phone calls were then made to encourage and facilitate responses by the deadline.

In total, 17 SABs and 12 private sector organisations filled in the questionnaires.

Interviews

Besides using questionnaires, semi-structured telephone interviews were also used to collect first-handed information on tools and data sources to identify risk.

When we considered the input from a SAB or private company on our questionnaire of particular interest for this project, we invited them for a telephone interview to elaborate and clarify the approaches they are using to identify risk. Also, an interview was organised to further discuss a respondent’s input when some of the questionnaire responses were not very clear, or if we suspected that a respondent did not fully understand the question, we organised a phone interview to further
discuss the respondent’s input. Interviews were also organised with organisations that preferred to be interviewed instead of filling in the questionnaire.

In total, 7 SABs and 7 private sector organisations were interviewed in the framework of this project.

In addition, we consulted other organisations that are active in this area. We selected a number of organisations that have developed tools to identify risk, and some others than have a good overview of risk identification tools within a sector. Some of the organisations we consulted are Proforest, Global Canopy Programme (GCP), Humanity United, TMP Systems, Ethical Training Initiative (ETI), Verisk Maplecroft, GSCP, Sustainable Seafood Coalition (SSC), Seafish, and Transitions.

**Analysis of information**

We analysed the information collected by the questionnaires and interviews to identify patterns of the use of risk identification strategies among standards systems and private companies. We also looked for synergies and differences between types of organisations (standards bodies vs. private companies), and between the four sector areas this survey is targeting. In several cases this information was analysed in a quantitative way.

The information that was collected through the reviews and the semi-structured interviews was analysed in a more qualitative way, and was particularly useful for deepening our understanding of the different risk identification strategies, and to learn about their effectiveness and challenges.

**Limitations**

The risk strategies identified for this study are not an exhaustive list of the approaches being used throughout the sustainability world. Firstly, the organisational representatives who participated in the study and the literature reviewed by Proforest did not always cover the entirety of tools, risk factors and data sources used within an organisation. Secondly, the sample of organisations included in this study is small and skewed towards organisations based in Europe or North America. However, it is hoped that the risk identification strategies highlighted by participants represent the approaches which they have found to be particularly effective or noteworthy; and that the spread of the four sectors studied incorporating natural resource extraction, on-farm production and factory-based production in multiple countries worldwide will produce findings which can be extrapolated to other types of organisation and supply chains.

Regarding the representation of the four sectors and two organisation types within the group of participants engaged by Proforest, this is not equally distributed and the results should be interpreted with this in mind. Overall, the response rate to invitations to participate in questionnaire and interviews was around 60%. However, we experienced a low response rate by companies in the fisheries sector; while our coverage of standards in the forestry sector is more narrow than the other three. Agriculture and textiles (particularly apparel) may be over-represented in the study given the larger number of participants and the relatively larger amount of publicly available information on risk-based approaches for these two large sector areas.
## Annex 2. Data sources and tools

The table below presents a compilation of largely quantitative desk-based data sources and tool. Note: the table does not present an exhaustive list. It includes only those mentioned by surveyed organisations and others identified during this study.

<table>
<thead>
<tr>
<th>Data source or tool</th>
<th>Threats or risk factors considered</th>
<th>Developed by</th>
<th>Web link</th>
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<tr>
<td>Risk indices</td>
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<tr>
<td>Corruption Perception Index (CPI)</td>
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<td>Employing Workers Index (EWI)</td>
<td>Labor market regulation</td>
<td>World Bank</td>
<td><a href="http://www.doingbusiness.org">www.doingbusiness.org</a></td>
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<td>Environmental Performance Index (EPI)</td>
<td>Protection of human health and ecosystems</td>
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<td>Fragile States Index (FSI)</td>
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<td>Gender Development Index</td>
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<tr>
<td>Global Hunger Index (GHI)</td>
<td>Poverty</td>
<td>International Food Policy Research Institute</td>
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<td>Global Multidimensional Poverty Index (MPI)</td>
<td>Poverty</td>
<td>Oxford Poverty &amp; Human Development Initiative</td>
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<td>Global Rights Index</td>
<td>Workers’ rights</td>
<td>International Trade Union Confederation</td>
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<td>PRIndex</td>
<td>Tenure security</td>
<td>Omidyar Network, DFID</td>
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<td>Social Institutions and Gender Index (SIGI)</td>
<td>Institutions affecting women’s and girls’ rights</td>
<td>OECD</td>
<td><a href="http://www.genderindex.org/">www.genderindex.org/</a></td>
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<tr>
<td>Verisk Maplecroft risk indices</td>
<td>Wide variety of risks</td>
<td>Verisk Maplecroft</td>
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<td>Spatial datasets and databases</td>
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<td>Armed Conflict Location &amp; Event Data (ACLED) Project</td>
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<td>Biodiversity Hotspots</td>
<td>Environmental risks</td>
<td>CEPF, Conservation International</td>
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<td>EITI datasets</td>
<td>Governance in the mining sector</td>
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### Data source or tool

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<tr>
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<td>Global Forest Watch</td>
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<td>Watersheds</td>
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<td>GRAS Tool</td>
<td>Multiple in agriculture and forestry</td>
<td>Meo Carbon Solutions and other partners</td>
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<td>ISIS-Fish simulation model</td>
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<td>Responsible Sourcing Tool</td>
<td>Human trafficking</td>
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<td>Social Conflict in Africa Database (SCAD)</td>
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<td>Tenure Data Tool</td>
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<td>The GDELT Project</td>
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### Non-spatial datasets and databases

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<td>FAOSTAT</td>
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<td>Global Internal Displacement Database (GIDD)</td>
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<td>Internal Displacement Monitoring Centre</td>
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<td>Global Map of Environmental and Social Risks in Agro-Commodity Production (GMAP)</td>
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<td>Good Fish Guide</td>
<td>Fish stock status and management, bycatch, habitat</td>
<td>Marine Conservation Society</td>
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<td>List of goods produced by child or forced labour</td>
<td>Child labour and forced labour</td>
<td>United States Department of Labor</td>
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<td>Manufacturing Restricted Substances List (MRSL)</td>
<td>Chemicals used in manufacturing processes</td>
<td>Zero Discharge of Hazardous Chemicals</td>
<td><a href="http://www.roadmaptozero.com">www.roadmaptozero.com</a></td>
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<td>Seafood Watch Program</td>
<td>Fish stock status and management, bycatch, habitat</td>
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<td>SIMPOC child labour statistics</td>
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<td>The Land Matrix</td>
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<td>The Uppsala Conflict Data Program</td>
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<td>Uppsala University</td>
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### Alerts and dashboards

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<td>Know The Chain benchmarks</td>
<td>Forced labour (food and beverage; apparel)</td>
<td>Humanity United</td>
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### Self-assessment tools

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<td>EcoVadis CSR Scorecards</td>
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<td>Farm Sustainability Assessment</td>
<td>Social and environmental risks in agriculture</td>
<td>SAI</td>
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<td>IAN Diligence</td>
<td>Tenure risk, other social and governance-related risks</td>
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