

# WORKING-PAPER – UMR MOISA

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***WORKING PAPER MOISA 2010-8***



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## Looking for the (missing) indicators of social sustainability - Evidence from sustainability standards in the coffee sectors

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Décembre 2010

### Abstract

Rising consumer interest for ethical and/or responsible products and the growing interweaving of social and environmental issues question the ability of scientific methods to correctly assess social impacts. To this day however, no consensus has yet been reached on relevant indicators to assess social impacts. In this article, we try to identify consistent indicators of social sustainability, based on the study and comparison of well-known sustainability standards currently used in the coffee sector (FLO, ESR, IMO, ETI, UTZ, Rainforest Alliance and Globalgap). The choice of relevant indicators is based on their realism and applicability, and on existing consensus among the standards on “minimal requirements” to certify sustainable practices in the coffee sector. Our main contributions to the debate on the choice of significant and relevant indicators are: to identify permanent features and areas of consensus between the different standards studied; and to question the definition of a socially sustainable product..

### Keywords

Methods, Social LCA, Social standards, indicators, Food sector

### Quels indicateurs pour l'évaluation de la durabilité sociale ? Une entrée par les standards durables du café

### Résumé

L'intérêt grandissant des consommateurs pour les produits éthiques et/ou responsables et l'imbrication croissante des problématiques sociales et environnementales amènent à nous interroger sur la capacité des méthodes scientifiques actuelles à mesurer l'impact social. A ce jour, il n'existe pas de consensus autour d'indicateurs de durabilité sociale. Dans cet article, nous tentons d'identifier des indicateurs pertinents grâce à la comparaison de standards de durabilité communément utilisés dans le secteur du café (FLO, ESR, IMO, ETI, UTZ, Rainforest Alliance and Globalgap). Le choix de la pertinence des indicateurs est basé sur leur réalisme et leur applicabilité, ainsi que sur l'existence d'un consensus entre standards sur un « minimum requis » dans les cahiers des charges, pour la certification de pratiques socialement durables dans le secteur du café. Les contributions principales de ce papier sont : l'identification d'aires de consensus minimal entre les standards et une discussion de la durabilité sociale telle qu'elle est définie par ces standards.

### Mots clefs

Méthodes, ACV sociale, standards sociaux, indicateurs, secteur agro-alimentaire

JEL: O13, Q13, Q17, L15

Article présenté aux 4èmes journées INRA-SFER-CIRAD de recherches en sciences sociales, Rennes (FRA), 09-10/12/2010



# 1. Introduction

Consumers are increasingly concerned by the conditions of production and trade of the goods they buy, and are ready to pay more for products with such desired attributes as food safety, environmental protection, respect of human and labour rights, animal welfare, etc. In the food industry, private firms have reacted to these new concerns by developing various strategies, including the development of certification systems and labelling (e.g. fair trade, social accountability, forest certification schemes, etc.), and corporate social responsibility reporting.

Underlying such strategies, methodologies have been developed to assess and communicate the impacts of transnational production and trade flows “from the farm to the fork”. Among these methodologies, Life Cycle Assessment (LCA) has been enjoying growing popularity over the last decade. Based on a holistic and systemic approach, LCA is a relevant tool to collect information about potential and real impacts of a product over its entire life span (UNEP-SETAC, 2009). Traditionally designed to evaluate environmental impacts, LCA tools have only recently focused on social issues. Both the current development of ethical trade and the growing interweaving of social and environmental issues make it important to question LCAs ability to address social impacts. Although several attempts to design a Social Life Cycle Assessment (SLCA) were made, no consensus has yet been reached among researchers.

In a review of different SLAC approaches, Jorgensen *et al.* (2008) reveal two main approaches in the choice and formulation of indicators. In the *top-down* approach, indicators are selected based on international acceptance and representativeness of globally recognized societal values (Dreyer *et al.*, 2006; Kruse *et al.*, 2009). The formulation of these macro-level indicators is particularly helpful to avoid modelling too many insignificant impacts (Weidema, 2006). The main problem of this strategy is that the selected indicators are but loosely connected with the real world (Kruse *et al.*, 2009). In an attempt to better take into account local realities, the *bottom-up* approach identifies indicators at the micro-level (Kim and Hur, 2009; Kruse *et al.*, 2009), based on industry, stakeholder interests and/or data availability (Kruse *et al.*, 2009). The problems of this approach are a heavy reliance on *ad hoc* indicators and high site specificity.

Another issue is related to the measure and aggregation of indicators across life cycles to allow a comparison of supply chains. Norris (2006) develops an approach to assess the social attributes of a supply chain – the Life Cycle Attribute Assessment (LCAA). LCAA is a quantitative methodology based on

practical reporting and aggregation of attributes across a life cycle analysis. Instead of calculating quantitative impacts, LCAA provides performance in a relative way within the supply chain – *What percentage of my supply chain has attribute X?*” (Andrews *et al.*, 2009:565). According to Norris, process attributes can be whether or not a company is certified as following best management practices, as prohibiting child labour, etc. Following the proposition of Norris (2006), Andrews *et al.* (2009) apply this approach to the Quebec greenhouse tomato supply chain. In this case study, the authors focus on local labour. They also select among a potential set of indicators (which is actually very large) seven other indicators, including: small and medium-sized enterprises, workplace insurance for employees, medical insurance for employees, sustainable development report published by the company within two years, wage above one or two times the minimum wage, annual health and safety incidence rate published by the company. The authors consider these indicators as analogous to midpoint indicators in environmental LCA and justify them as good proxies of improved management of community impacts that show their efforts towards contributing to human well-being. However, at the end of their paper, Andrews *et al.* (2009) highlight the need of further research on the definition of indicators. Indeed, the choice of indicators has many implications for the analysis of the product system’s performance. Academics in the field of LCAA underline the need to emphasize the connection with indicators in the field of certifications.

Drawing on this proposition, in this paper we contribute to the debate on the definition of relevant indicators by analyzing well-known food sector standards. To do so, we compare existing indicators belonging to: fair trade standards (FLO, ESR and IMO); private ethical standards (ETI); and ethical indicators from more general sustainability standards (Rain Forest Alliance and Utz) and one private standard (GlobalGap). This comparison first provides us with a set of criteria (equivalent to midpoints or sub-categories) found in these standards according to a series of principles (equivalent to endpoints or categories) stated in their codes of conduct. In a second step, we identify areas of consensus among the standards, or what we can call *minimum social requirements to certify sustainable practices in the food sector*. Many of these standards are developed to regulate international trade flows of food products between developed and developing countries. As a result, many indicators will bear the mark of this peculiar focus (*e.g.* fair trade). Still, we think that the broad spectrum of indicators raised by standards is little explored by the literature on LCA, and may be useful in the debate to define a socially sustainable product.

This paper is organized as follows. First we describe the standards chosen and the method we use for comparison. We then present the results of our analysis. Finally we discuss the results by comparing them to the propositions found in the current literature.

## 2. Methods

Within the SLCA literature, there are two ways to qualify the hierarchical organization of indicators: (1) drawing on environmental LCA, some authors such as Weidema (2006) use the hierarchical organization based on ‘inventory indicators–midpoint–endpoint categories’; (2) UNEP SETAC (2009) identify ‘inventory indicators–subcategories–impact categories’. A useful parallel is found at the international level where standards are negotiated: stakeholders express their codes of conduct in terms of ‘principles–criteria–indicators’. We assume that this hierarchical organization is comparable with that used in the LCA literature. This will facilitate our analysis and discussion within the debate on the definition of indicators. In addition, by using existing standards, we get rid of the problem of measure: these standards are currently used and need to be easily verified by third party certifiers. As a consequence, they already focus on easily available data that can be estimated at the inventory level and for which criteria are relevant to assess.

In our analysis, we use seven well-known sustainability standards that are currently used in the food sector. For the sake of comparability, we use the codes of conducts for the certification of coffee, which is a common product for all the selected standards. The Fairtrade labelling Organisation (FLO) is a group of international fair trade organizations created in 1997. FLO develops and reviews fair trade standards aimed at supporting small and vulnerable farmers in developing countries. Ecocert is a French certification body that created its own fair trade standard in 2007, called *Echanges Equitables, Solidaires et Responsables* (referred to as ESR hereafter). IMO is a Swiss certification body that launched in 2006 its own social and fair trade certification called *Fair for Life*. All three standards promote the principles of fair trade, *i.e.* improve the livelihoods of small producers and plantation wage workers. Since FLO and IMO have different codes of conducts for individual producers and plantations, we used in this research work the codes of conduct of plantations that give more indicators for wage workers. The Ethical Trading Initiative (ETI) is an alliance of companies, trade unions and voluntary organisations created in 1998. ETI works to improve the lives of workers across the globe. Global Good Agricultural Practices (GlobalGap, referred to as GG hereafter) was created in 1997 by European retailers. This standard

promotes good agricultural practices and improved farm management techniques. Rainforest Alliance is an international NGO created in 1987 to fight tropical deforestation. Its standard aims to cover all aspects of sustainable agriculture (environment, rights and welfare of workers and the interests of local communities). It does not prohibit use of agrochemicals but requires integrated pest management, the maintenance of shade cover and/or the restoration of native forest reserves). Utz certified is an independent multi-stakeholder initiative created in 1997 by Guatemalan coffee producers and a Dutch coffee roaster. Its standard covers good agricultural practices in coffee production and worker welfare, including access to healthcare and education. It emphasizes responsible production and sourcing. These three last standards are not socially oriented but have developed a social section in their codes of conducts. All the standards, analyzed here, claim to have all representative committee to negotiate and decide the certification design (including producer's organizations). The documents used for the comparison are listed in the references.

Firstly, we identify the set of criteria present in each of the existing standards and compare these standards based on their score for each criterion. For each standard, the score is obtained by adding the number of compulsory indicators for a given criterion. It is equal to two if the indicator is compulsory and is null otherwise. The scores are then expressed as the percentage of the total score of the given standard. Secondly, we identify areas of consensus among the indicators: these are our *minimum social requirements to certify sustainable practices in the food sector*. To do so, we sum the number of standards where a given indicator is compulsory. Given that we selected seven standards and that the score of an indicator is equal to two when it is compulsory, the maximum total score obtained for an indicator (all standards included) is 14 and can be considered as a major consensus. The next part presents the results of the comparison.

### **3. Results**

#### **3.1. Identification of criteria and calculation of scores**

The three areas with the largest number of criteria are *Health, Safety and Hygiene*, followed by *Prohibited labour Employment Practices* and *Conditions of Employment*. The results also show major differences on standard priorities in terms of social welfare (Table 1). Globalgap focuses only on the *Health, Safety and Hygiene* criteria. Rainforest Alliance has a clear priority on *Prohibited labour Employment Practices*.

The other standards are more diversified. The less represented criteria are: *Social Benefits* and *Right to Association*.

**Table 1:** Comparison of criteria scores among food standards

|                                       | Flo Sal.   | ESR        | IMO Sal.   | ETI        | UTZ        | RA         | GG         |
|---------------------------------------|------------|------------|------------|------------|------------|------------|------------|
| HEALTH, SAFETY & HYGIENE              | 20         | 24         | 18         | 14         | 23         | 14         | <b>100</b> |
| CONDITIONS OF EMPLOYMENT              | 20         | 20         | 26         | 17         | 9          | 14         | 0          |
| WORKING HOURS                         | 18         | 4          | 16         | 17         | 20         | 0          | 0          |
| SOCIAL BENEFITS                       | 5          | 0          | 5          | 3          | 11         | 0          | 0          |
| DISCRIMINATION                        | 10         | 8          | 5          | 10         | 6          | 0          | 0          |
| PROHIBITED LABOR EMPLOYMENT PRACTICES | 15         | 36         | 24         | 28         | 23         | <b>71</b>  | 0          |
| RIGHT TO ASSOCIATION                  | 13         | 8          | 5          | 10         | 9          | 0          | 0          |
| <b>TOTAL</b>                          | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> |

### 3.2. Identification of a consensus among the indicators

Insofar the standards do not adopt all identified criteria (*e.g.* Globalgap only focuses on one criterion), there is no consensus about what indicators represent *a minimum social requirement* (Figure 1). Despite big differences between the studied standards that we will not detail here – *e.g.* in their objectives, scope, style, ownership, promoters, or in the way of ensuring compliance –, there are areas of agreement that we identify as minor consensual indicators.

Within the *Health, Safety and Hygiene* criterion, we identify three consensual indicators: “safety equipments” “risk management policy” and “access to drinking water”. Concerning the *Conditions of Employment*, the only indicator retained is “compliance with the national legislation on minimum legal salary”. Within the *Working Hours* criterion, the only indicator retained is “number of extra hours”. The *Discrimination* criterion shows “no discrimination on salary level” as a consensus. Within the *Prohibited Labour Employment Practices*, we identify five nearly consensual indicators: “prohibition of

child labour” “prohibition of forced labour” “no corporal punishment” “no retain legal document by the employer” and “young workers (in general between 15 years and 18 years) are not allowed to be engaged in inappropriate work (such as, hazardous work, night work...)”. Finally, within the criteria *Right to Association* and *Social Benefit*, there are no consensuses at all.



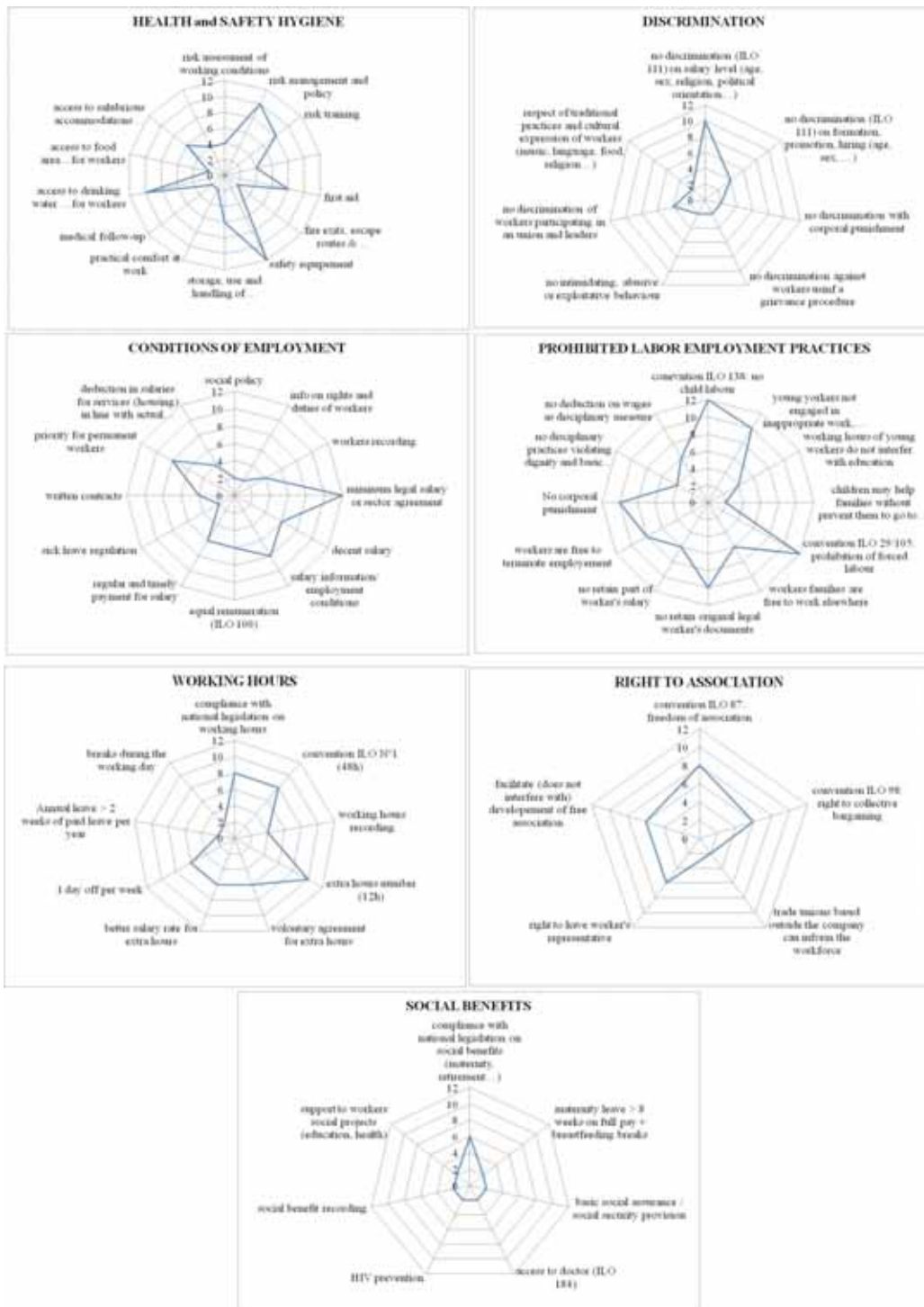


Figure 1: Identification of consensual social indicators among food standards

The studied standards borrow several criteria and indicators to international agreements such as the *Universal Declaration of Human Rights* or the *International Labour Organization* as seen above. Nevertheless, some of these indicators – e.g. “freedom of association (conv. 138)” or “collective bargaining (conv. 98)” – are not considered as priorities by the standards. As the UNEP guideline for SLCA (2009) highlights, international conventions often represent a minimum to attain. Although in many developed countries, the legislation already covers many principles of these international instruments and non-compliance represents a criminal offence, in developing countries this might not be the case. This explains why sustainability standards tend to focus on these minimum levels. Voluntary standards being designed “to avoid blame and shame”, they focus on worker health and safety, on extreme labour practices (child labour, forced labour, corporal punishment) and on compliance with national legislation on minimum legal salaries. Although these standards are unsatisfactory for defining a socially sustainable product, they are certainly more appropriate in the context of developing countries. For instance, the indicators proposed by Andrews *et al.* (2009) – e.g. workplace insurance and basic medical insurance for employees – may be not relevant in many developing countries where this kind of insurance does not exist. Additional research is probably needed to include the perception of the main stakeholders, and therefore to use indicators that are meaningful for them in a specific context.

#### **4. Conclusion**

Despite growing consumer concerns about the social dimension of sustainable development, no consensus has yet been reached among researchers, and further research is needed for the definition of appropriate indicators.

In this context, this paper proposes to draw on the proposition found on the literature to emphasize connections with indicators from sustainability standards. They may provide us with good examples of a set of social criteria. They also allow bypassing a common problem of availability and measurability of the chosen criteria, since these standards are commonly accompanied by check-lists for certification bodies to assess stakeholder compliance with the standard. Based on a selection of 7 sustainability standards from the food sector, we identified common criteria and investigated areas of consensus around some indicators that we interpret as “*minimal requirements*” in the certified sustainable food sector. Results show that there is little consensus among the indicators and that these standards seem to be much more oriented

toward “no blame no shame” strategies -the criteria that encompass most consensual indicators are: *Health, Safety and Hygiene* (3) and *Prohibited Labour Employment Practices* (5) - than towards serious social sustainability dimensions - such as avoiding social risks (insurance) or increasing capabilities for producers (association, collective bargaining, training). That may be surprising since many of these standards claim to have been negotiated together with the stakeholders (namely producers and producer’s organizations). By this work, we aim to explore new social indicators. In the end, our results question the ability of sustainability standards to be a basis for defining socially sustainable products. Nevertheless, these instruments have the advantage of focusing on indicators connected with local realities.

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