

## **Supplementary Information B: Life Cycle Impact Assessment Methods and Performance Reference Points.**

### **STAKEHOLDER: WORKERS**

Access to meaningful and sufficient work enables the participation of citizens in many aspects of life and society, including the ability to satisfy basic needs. At the same time, the cumulative contribution of workers underpin well-functioning companies and economies that, in turn, can create socially desirable opportunities for societies. Many of the decisions and activities of companies have immediate or long-term, tangible, and important impacts on worker well-being. Ensuring sustainable conditions for workers is therefore critical for social sustainability writ large.

#### **Freedom of Association and Collective Bargaining Rights**

Freedom of association and collective bargaining rights are a central component of fundamental labour rights as recognized by the International Labour Organization (ILO). Involving employees in planning processes, providing ample notice of operational changes, and affording employees access to third-party dispute resolution procedures are also important to advancing employee empowerment and job satisfaction. Based on ILO fundamental labour rights, the PRP for restrictions on the right to collective bargaining is 0% restriction. Actual degree of representation however, may vary widely based on country and industry norms, even where no actual restrictions exist. In Canada, Employment and Social Development Canada [1] reports a 31.5% unionization rate for 2012. This is likely much lower for the agriculture sector. For the purpose of the current analysis, the PRP for the egg industry is defined based on the Canadian unionization rate (i.e. a unionization rate of greater than or equal to 31.5% up to 50% is considered here to be a compliant behaviour, whereas a lesser unionization rate is considered to be a risky behaviour for the egg industry. A unionization rate of > 50-75% would be considered proactive, and a rate of > 75% would be considered committed).

With respect to employee participation in planning of changes that will affect working conditions, codified minimum notice periods for significant operational changes, and access to neutral, third-party dispute resolution, no norms were identified as a basis for PRPs. Instead, the PRPs are here defined along a threshold of potential outcomes spanning from compliant to committed behaviour. For example, 76-100% employee participation in planning is here considered a “committed” behaviour, 26-75% a proactive behaviour, and 0-25% participation is considered to be ‘compliant’ in light of the apparent current lack of norms (see Supplementary Information B Table 1).

#### **Fair salary**

Fair salary is essential to appropriately remunerating workers for their activities and to enable worker access to an acceptable standard of living. Fair salary may potentially be assessed on several bases. Here, the PRPs for fair salary are defined relative to (a) legislated minimum wage requirements; and (b) the average wage for Canadian agricultural workers (\$15.87 hourly) (StatsCan table 282-0072). A compliant score requires that egg industry wages meet or exceed these wages levels (0 – 24% greater), while proactive (25-50% greater) or committed (51+% greater) scores reflect incrementally higher wages relative to these norms. Risky behaviour is assessed if wages are lower than the identified norms. Scores are assessed for both the lowest paid and average employee.

In addition, egg facilities were evaluated with respect to regularity and documentation of pay, with 100% regularity and documentation, and 0% complaint rate regarding wage deductions taken as the performance reference points for risky versus compliant behaviour (SI B Table 2)

### Working Hours

Upper limits on working hours protect workers from potentially unsafe levels of fatigue and also enable them to achieve a balance between work and private life pursuits. The average Canadian worker had a 36.6 hour work week in 2012 [2]. The ILO specifies 48 hours as the maximum desirable workweek length. Performance in the Canadian egg industry with respect to working hours was assessed for average work week length, longest average work week, and % of employee hours worked in excess of 48 hours per week relative to these norms. For average work week, a proactive behaviour was assessed if workers in Canadian egg facilities worked less than 36.6 hours per week, and a compliant behaviour if the average work week was between 36.6 and 48 hours. A risky behaviour was assessed if the average work week exceeded 48 hours. Risky versus compliant behaviours were similarly assessed if the longest average week exceeded 48 hours and if a percentage of employees were reported to be working in excess of 48 hours weekly.

According to Service Canada [3], “Hours of work and overtime rules apply to most workers and vary significantly across Canada. However, most jurisdictions have established an overtime rate equivalent to one and a half times an employee’s regular rate of pay. Employers cannot refuse to pay overtime rates and cannot force workers to work excessive hours, nor can they fire workers or have them deported if they refuse or complain about overtime work.” However, Service Canada [3] also observes that “farm workers may be paid a piece rate instead of a minimum wage, and in most provinces they are not eligible for overtime or public holiday pay.”

The PRP for contractual agreements is 100% incidence rate (compliant behaviour), while the PRP for overtime compensation is assessed relative to two norms. The first is the agricultural sector norm (no compensation), where lack of overtime compensation is considered compliant, but incremental incidence of overtime compensation reflects proactive (1-1.5x regular pay) or committed (>1.5x regular pay) behaviour. The second is the Canadian norm (mandatory at 1.5x regular pay in most jurisdictions). Here, compensation at less than the Canadian norm is considered risky, whereas higher levels of compensation (>1.5x regular pay) are taken to signal proactive behaviour (SI B, Table 3).

### Equal Opportunities

Equality is a basic human right. Gender and racial equality are central to the ILO’s global aim of Decent Work for All Women and Men. Eight Equal Opportunities indicators are assessed (SI B, Table 4), covering equality with respect to proportional gender representation (roughly 50% female), visible minority representation (19.1% of Canadian population in 2011), complaints of discrimination, and basic salary ratios for employees and managers. Since broadly accepted norms are not available, performance was assessed based on incident rate of behaviours, spanning a continuum from risky to committed behaviour. Performance with respect to existence of a formal equal opportunities policy at Canadian egg facilities is scored as “compliant” if the observed incidence rate industry-wide falls between 0-25%, as proactive for 26-75% and as “committed” if the observed incidence rate falls between 76-100% (SI B, Table 4). For gender balance, visible minority representation, females in management positions and visible minorities in management positions, proportional representation -10% is considered proactive, -

10 - 25% is considered compliant, and >25% is considered risky. A 0% incidence rate (compliant behavior) applies for complaints of discrimination or harassment. Basic salary ratios of female to male employees and managers are scored as compliant if they are within 10% of parity and risky if the ratio is greater.

Inventory data are also reported for age distribution, but no impact assessment is performed.

## Health and Safety

Access to healthy and safe working conditions is a fundamental labour right. Here, workdays lost due to work-related illness/injury, Workman's Compensation Board (WCB) claims made, and inventory data on reported expenditures are reported, and eight indicators are assessed with respect to Health and Safety social sustainability outcomes (SI B, Table 5). The indicators relate to incidence rates of work-related diseases and fatalities, workplace conditions, health and safety training, and access to protective and/or health and safety equipment and personnel. Performance levels are assessed based on degree of observed incidence. For medically-diagnosed, work-related diseases and fatalities, and for workplaces characterized by high levels of noise, fumes, dust, heat or other irritants, an incidence rate > 0% industry-wide is characterized as a "risky" behaviour (SI B, Table 5). For access to clean water and sanitary facilities, a compliant behavior score requires 100% incidence. For all other indicators, an incidence rate of 0-25% = compliant, 26-75% = proactive, and 76-100% = committed behavior.

## Social Benefits, Social Security, and Job Security

The provision of social benefits, social security and job security provide important protections and assurances for workers as well as access to services deemed conducive to well-being. Data are reported with reference to 21 questions regarding social benefits, social security and job security (SI C, Table 24). In turn, these data are aggregated and expressed as life cycle impact assessment results for three indicators representing provision of social benefits, job security (in the form of employment contracts), and employee turn-over rate (SI B, Table 6). Since provision of benefits is non-mandatory, it was decided to assess behaviour with respect to provision of social benefits in two tiers based on the proportion of employers providing either at least one or three social benefits (SI B, Table 6) (0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed). With respect to employment contracts, the PRP is based on the ideal scenario of 100% incidence rate of formal employment contracts (i.e. <100% incidence = risky). For employee turn-over, the PRP is defined relative to the Canadian average. According to the Conference Board of Canada [4], the voluntary employee turn-over rate in Canada in 2012-2013 was 7.3%.

**TABLE S1. LIFE CYCLE IMPACT ASSESSMENT METHOD WITH RESPECT TO "FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING RIGHTS" FOR WORKERS IN CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Freedom of Association and Collective Bargaining Rights</b>	<b>Performance Reference Points</b>
No restrictions on the right of employees to collective bargaining	0% reported incidence of restrictions = compliant behaviour > 0% reported incidence of restrictions = risky behaviour
Actual degree of union representation	>75% = committed > 50% - 75% = proactive > 31.5% - 50% representation = compliant

	<-31.5% representation = risky
Employee participation in planning of larger changes in organization which will affect working conditions	76-100% participation = committed 26-75% participation = proactive 0-25% participation = compliant
Codified minimum notice period(s) regarding significant operational changes	76-100% codified minimum notice period = committed 26-75% codified minimum notice period = proactive 0-25% codified minimum notice period = compliant
Employee access to a neutral, binding, and independent dispute resolution procedure	76-100% access = committed 26-75% access = proactive 0-25% access = compliant

**TABLE S2. LIFE CYCLE IMPACT ASSESSMENT METHODS WITH RESPECT TO "FAIR SALARY" FOR WORKERS IN CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Fair Salary</b>	<b>Performance Reference Points</b>
Hourly wage of lowest paid employees relative to legislated minimum wage	51%+> minimum wage = committed 25-50%> minimum wage = proactive 0-24%> minimum wage = compliant < minimum wage= risky
relative to average for Canadian agricultural workers	51%+> average = committed 25-50%> average = proactive 0-24%> average = compliant < average = risky
Hourly wage of average employees relative to legislated minimum wage	51%-100%> minimum wage = committed 25-50%> minimum wage = proactive 0-24%> minimum wage = compliant < minimum wage= risky
relative to average for Canadian agricultural workers	51%-100%> average = committed 25-50%> average = proactive 0-24%> average = compliant < average = risky
Regularity and documentation of pay	100% regularity and documentation = compliant <100% regularity and documentation = risky
Complaints regarding wage deductions	0% complaint rate = compliant >0% complaint rate = risky

TABLE S3. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "WORKING HOURS" FOR WORKERS IN CANADIAN LAYER EGG FACILITIES IN 2012.

Working Hours	Performance Reference Points
Average work week for employees	<36.6 hours = proactive 36.6-48 hours = compliant >48 hours = risky
Longest average work week for any employee	< 48 hours = compliant >48 hours = risky
% of employees working more than 48 hours per week	0% incidence = compliant >0% incidence = risky
Contractual agreement on working hours, conditions, and overtime compensation	100% incidence rate = compliant <100% incidence rate = risky
Compensation for overtime hours	
Agricultural sector norm	>1.5x compensation = committed 1-1.50x compensation = proactive no compensation = compliant
Canadian norm	>1.5x compensation = proactive 1.5x compensation = compliant <1.5x compensation = risky

**TABLE S4. LIFE CYCLE IMPACT ASSESSMENT METHODS WITH RESPECT TO "EQUAL OPPORTUNITIES" FOR WORKERS IN CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Equal Opportunities</b>	<b>Performance Reference Points</b>
Existence of formal equal opportunities policy	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Gender balance	Gender balance +/- 10% = proactive Gender balance +/-10-25% = compliant Gender balance +/->25% = risky
Visible minority representation	19.1% - 10% = proactive 19.1% - 10-25-% = compliant 19.1% - >25%= risky
Females in management positions	Representation - 10% = proactive Representation -10-25% = compliant Representation ->25% = risky
Visible minorities in management positions	Representation - 10% = proactive Representation -10-25% = compliant Representation ->25% = risky
Complaints of discrimination or harassment	0% incidence = compliant >0% incidence rate = risky
Basic salary ratio of female to male employees	Equal - 10% = compliant Equal ->10% = risky
Basic salary ratio of female to male managers	Equal - 10% = compliant Equal ->10% = risky

**TABLE S5. LIFE CYCLE IMPACT ASSESSMENT METHOD REGARDING "HEALTH AND SAFETY" FOR WORKERS IN CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Health and Safety</b>	<b>Performance Reference Points</b>
Medically-diagnosed, work-related diseases and fatalities	0% incidence = compliant >0% incidence = risky
Dedicated Health and Safety plan and manager	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Workplace characterized by high levels of noise, fumes, dust, heat, or other irritants	0% incidence rate = compliant >0% incidence rate = risky
Training in handling hazardous materials	76-100% incidence rate = committed 26-75% incidence rate = proactive

	0-25% incidence rate = compliant
Provision of protective gear	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
First aid equipment available	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
First aid attendant available	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Access to clean water and sanitary facilities	100% incidence rate = compliant <100% incidence rate = risky

**TABLE S6. LIFE CYCLE IMPACT ASSESSMENT METHODS WITH RESPECT TO "SOCIAL BENEFITS, SOCIAL SECURITY, AND JOB SECURITY" FOR WORKERS IN CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Social Benefits, Social Security, and Job Security</b>	<b>Performance Reference Points</b>
Provision of social benefits	
at least one non-mandatory social benefit	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
at least three social benefits	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Job security (employment contracts)	100% incidence rate = compliant <100% incidence rate = risky
Employee turn-over	<7.3% = compliant >7.3% = risky

## STAKEHOLDER: LOCAL COMMUNITY

Egg facilities are situated and operate within the context of local communities. Activities at egg facilities may impact on the local community at large, either contributing to or detracting from social sustainability. At the same time, egg facilities may directly benefit local communities through the creation of infrastructure (for example, road upgrades, visual and noise buffering systems, conservation easements, etc.) with mutual community access and benefit, or through charitable activities.

### Access to Resources

Improving access to resources for local communities is one way in which businesses can “give back” to the communities that host their activities, hence contributing to the sustainability of the local community. Norms and standards do not exist by which to measure the extent or value of such contributions, although the practice of corporate social responsibility would generally encompass such behaviours. Developing aspirational targets for the egg industry would be one possible mechanism for encouraging and mainstreaming such behaviours. Here, improving access to resources for local communities is assessed based on an arbitrarily defined PRP of \$1000 per facility for expenditures on infrastructure with mutual access and benefit, and \$1000 per facility for voluntary, charitable donations and investments. Taken together, this represents less than 1% of average reported annual net profit for egg producers. Since no pre-existing norms/standards were identified, behaviours are assessed as either compliant (at least \$1000 per facility annually) or proactive (at least \$2000 per facility annually) (SI B, Table 7).

### Safe and Healthy Living Conditions

Activities at or in support of egg facilities may potentially impact on the health and safety of local residents. Safe and Healthy Living Conditions PRPs for accidents, complaints and nuisance issue fines are defined relative to an ideal scenario of 0 occurrences, and are assessed as either risky (incidences reported) or compliant (no incidences reported). PRPs for management interventions (having formal protocols in place to ensure safe and healthy living conditions, minimize risks, and respond to grievances, and having an environmental farm management plan) are defined based on incidence rate, with 0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed (SI B, Table 8).

### Respect for Indigenous Rights

First Nations communities contribute an important component of most communities across Canada. In some cases, land rights conflict with First Nations communities may exist in the areas where egg facilities are situated, calling into question the social sustainability of such facilities. Egg facility operators may hence have an interest in proactively engaging with local First Nations communities. PRPs for Respect for Indigenous Rights are defined based on incidence rate (0% incidence rate of farms located in areas where land rights conflicts exist and 0 complaints received from indigenous community members = compliant, whereas reported incidences = risky behaviour), and having a formal policy to protect indigenous community members (with 0-25% incidence rate defined as compliant, 26-75% as



proactive, and 76-100% as committed). Incidence of meetings held with indigenous communities was similarly evaluated (SI B, Table 9).

### Community Engagement

Proactive community engagement can be an important vehicle for increasing social license to operate within local communities, and also create important opportunities to empower local communities to represent their interests. Such engagement might take the form of interactions with stakeholder groups and participation in community initiatives. No relevant norms on which to base PRPs were identified. Rather, the PRPs for Community Engagement are defined based on: (1) degree of incidence for existence of a formal policy on community engagement (with 0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed): and (2) level of participation in community groups (0-1 meetings = proactive, > 1 meeting = committed) and volunteer hours (0-10 hours = proactive, > 10 hours = committed) (SI B, Table 10).

### Local Employment

Local hiring and sourcing may make important contributions to the economic viability of local communities. The PRPs for Local Employment are defined based on degree of incidence (with 0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed) for: (1) local hiring rate; (2) existence of a formal policy for local hiring; and (3) local sourcing of goods and services (SI B, Table 11).

**TABLE S7. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "ACCESS TO RESOURCES" FOR LOCAL COMMUNITIES HOSTING CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Access to Resources</b>	<b>Performance Reference Points</b>
Expenditures on infrastructure with mutual community access and benefit	>\$1000 = proactive <\$1000 = compliant
Expenditures on voluntary, charitable donations and investments in the local community	>\$1000 = proactive <\$1000 = compliant

**TABLE S8. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "SAFE AND HEALTHY LIVING CONDITIONS" FOR LOCAL COMMUNITIES HOSTING CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Safe and Healthy Living Conditions</b>	<b>Performance Reference Points</b>
Accident rate	0% incidence rate = compliant >0% incidence rate = risky
Complaints regarding nuisance issues	0% incidence rate = compliant >0% incidence rate = risky
Fines for nuisance issues	0% incidence rate = compliant

Formal protocols to mitigate risk and respond to grievances	>0% incidence rate = risky 76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Environmental farm management plan	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant

**TABLE S9. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "RESPECT FOR INDIGENOUS RIGHTS" FOR CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Respect for Indigenous Rights</b>	<b>Performance Reference Points</b>
Located in areas where land rights conflict with indigenous groups exist	0% incidence rate = compliant >0% incidence rate = risky
Formal policy to protect the rights of indigenous community members is in place	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Meetings were held with indigenous community members	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Complaints received from indigenous community members	0% incidence rate = compliant >0% incidence rate = risky

**Table S10. LIFE CYCLE IMPACT ASSESSMENT RESULTS REGARDING "COMMUNITY ENGAGEMENT" WITH LOCAL COMMUNITIES HOSTING CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Community Engagement</b>	<b>Performance Reference Points</b>
Existence of formal policy on community engagement	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Engagement with community stakeholder groups	> 1 meeting = committed > 0-1 meetings = proactive 0 meetings = compliant
Volunteerism in local community initiatives.	> 10 hours = committed > 0-10 hours = proactive 0 hours = compliant

**TABLE S11. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "LOCAL EMPLOYMENT" FOR LOCAL COMMUNITIES HOSTING CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Local Employment</b>	<b>Performance Reference Points</b>
Local hiring rate	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Formal policy regarding local hiring	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Local sourcing of goods and services	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant

## STAKEHOLDER: VALUE CHAIN PARTNERS

How companies engage with their suppliers may have important implications for social sustainability outcomes. The increasing implementation of life cycle thinking as a basis for corporate social responsibility initiatives has focused, in particular on engagements with value chain partners in order to leverage more sustainable outcomes across the supply chain.

### Fair Competition

Fair competition practices promote the capacity of value chain partners to engage in business regardless of relative market power and hence contribute to diverse and resilient value chains. PRPs for fair competition are defined based on degree of incidence for documentation of procedures to prevent engaging in or being complicit in anti-competitive behaviours (with 0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed), and as a 0% occurrence rate (compliant) for legal actions, fines or complaints regarding anti-competitive behaviours (SI B, Table 12).

## Promoting Social Responsibility

All companies have opportunities to influence more sustainable outcomes across their value chains. Activities to promote social responsibility, including sustainable sourcing, are increasingly prevalent in the agri-food sector. The PRPs for promoting social responsibility are defined based on: (1) degree of incidence for adherence to codes of conduct for protection of human rights among suppliers and auditing suppliers with respect to environmental or social responsibility (with 0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed); and (2) participating in initiatives to promote environmental or social responsibility along the value chain (0-1 meetings = proactive, > 1 meeting = committed) (SI B, Table 13).

## Supplier Relationships

Ensuring sustainable supplier relationships is essential to fair and transparent business practices and to promoting resilient, sustainable value chains. PRPs for supplier relationships are defined based on a threshold of 0 complaints (for a compliant versus risky score) from suppliers regarding coercive communications, insufficient lead time, or timeliness of payments (SI B, Table 14).

**TABLE S12. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "FAIR COMPETITION" FOR THE SUPPLY CHAIN PARTNERS OF CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Fair Competition</b>	<b>Performance Reference Points</b>
Documentation of procedures to prevent engaging in or being complicit in anti-competitive behaviours	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Legal actions, fines or complaints regarding anti-competitive behaviours	0 convictions = compliant > 0 convictions = risky

**TABLE S13. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "PROMOTING SOCIAL RESPONSIBILITY" FOR THE SUPPLY CHAIN PARTNERS OF CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Promoting Social Responsibility</b>	<b>Performance Reference Points</b>
Adhering to a specific code of conduct regarding the protection of human rights among suppliers	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Auditing suppliers with regards to environmental or social responsibility	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Participation in initiatives that promote environmental or social responsibility along the supply chain	> 1 meeting = committed > 0-1 meetings = proactive 0 meetings = compliant

**TABLE S14. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "SUPPLIER RELATIONSHIPS" FOR THE SUPPLY CHAIN PARTNERS OF CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Supplier Relationships</b>	<b>Performance Reference Points</b>
Complaints from suppliers with respect to coercive communication	0 complaints = compliant >0 complaints = risky
Complaints from suppliers with respect to insufficient lead time	0 complaints = compliant >0 complaints = risky
Complaints from suppliers with respect to timeliness of payments	0 complaints = compliant >0 complaints = risky

## STAKEHOLDER: SOCIETY

Management decisions and activities similarly impact on society at large, and may result in either societal risks or benefits. Demonstrating commitment to and actions consistent with contributing positively to society is fundamental to the concept of corporate social responsibility (CSR). CSR reporting, including transparent mechanisms for measuring, monitoring, goal setting and follow-up, is increasingly important to maintaining social license, as well as accessing emerging market opportunities associated with sustainability objectives. Contributions to society may also be measured in terms of economic activity levels, investments in training and development, and by compliance with responsible corporate behavior norms.

### Public Commitment to Sustainability

Making public commitments to sustainability creates accountability for companies whilst providing a basis for goal setting and performance tracking (both internally and externally). Such mechanisms serve to establish informal social contracts, and can powerfully motivate sustainability initiatives to the benefit of society as a whole. There are no mandatory requirements nor clear norms with respect to expectations regarding an organizations public commitment to sustainability. PRPs for Public Commitment to Sustainability are here defined based on degree of incidence of publically available CSR documents and having specific mechanisms in place to ensure the realization of public sustainability commitments (with 0-25% incidence rate defined as compliant, 26-75% as proactive, and 76-100% as committed). In addition, the following indicators are assessed: complaints related to non-fulfillment of promises or agreements (> 0 complaints = risky, 0 complaints = compliant); awards for engagement in social or environmental sustainability issues (> 0 -1 awards = proactive, > 1 award = committed); memberships in programs to support and promote sustainable business practices ( > 0 -1 memberships = proactive, > 1 membership = committed); total hours developed to sustainability programs ( > 0 -10 hours = proactive; > 10 hours = committed); total expenditures devoted to sustainability programs (> \$0 - \$1000 = proactive; > \$1000 = committed); and accusations of lobbying against sustainability measures ( > 0 complaints = risky) (SI B, Table 15).

### Contribution to Economic Development

Economic development is typically seen as a social “good” for society as a whole, since the creation of jobs and revenue streams enable citizens to pursue life opportunities. Economic activities associated with Canadian egg facilities provide for employment, support for local and regional goods and service providers, and tax monies. Data regarding contributions to economic development are presented as inventory data only. Impact assessment methods are not applied. Data are reported with respect to: total annual revenue; total wages paid; total payments to government; and total expenses (SI C, Table 18).

### Employee Training

Employee training strengthens the knowledge base and proficiency level of workers and can also contribute to the profitability of companies, both of which benefit society as a whole. PRPs for Employee Training are defined relative to hours of employee training (> 0 -10 hours = proactive, > 10 hours =

committed), and expenditures related to employee training (> 0 - \$1000 = proactive, > \$1000 = committed) (SI B, Table 16).

## Corruption

Corruption is generally viewed as unsustainable for society, in terms of disempowerment for impacted stakeholders, undermining fair competition, and generally lowering societal standards with regards to ethical practices. PRPs for corruption are here defined as a 0% incidence rate and \$0 fines paid/payable for violations of corruption-related laws or regulations (SI B, Table 17).

**TABLE S15. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "PUBLIC COMMITMENT TO SUSTAINABILITY" FOR SOCIETY AT LARGE WITH RESPECT TO CANADIAN LAYER EGG FACILITIES IN 2012.**

<b>Public Commitment to Sustainability</b>	<b>Performance Reference Points</b>
Publically available CSR documents	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Specific mechanisms to ensure the realization of public sustainability commitments	76-100% incidence rate = committed 26-75% incidence rate = proactive 0-25% incidence rate = compliant
Complaints related to non-fulfillment of promises or agreements	0 complaints = compliant >0 complaints = risky
Awards for engagement in social, environmental, or sustainability issues	> 1 reward = committed > 0-1 rewards = proactive 0 rewards = compliant
Memberships in programs to support and promote sustainable business practices	> 1 membership = committed > 0-1 memberships = proactive

	0 memberships = compliant
Total hours devoted to sustainability programs	> 10 hours = committed > 0-10 hours = proactive 0 hours = compliant
Total expenditures devoted to sustainability programs	>\$1000 = committed \$> 0-1000= proactive \$0 = compliant
Accused of lobbying against sustainability measures	0 complaints = compliant >0 complaints = risky

TABLE S16. LIFE CYCLE IMPACT ASSESSMENT METHODS REGARDING "EMPLOYEE TRAINING" FOR SOCIETY AT LARGE WITH RESPECT TO CANADIAN LAYER EGG FACILITIES IN 2012.

Employee Training	Performance Reference Points
(1) What were the total hours devoted to employee training?	> 10 hours = committed > 0-10 hours = proactive 0 hours = compliant
(2) What were your total expenses related to employee training? (\$)	>\$1000 = committed > \$0-1000= proactive \$0 = compliant

TABLE S17. LIFE CYCLE IMPACT ASSESSMENT RESULTS REGARDING "CORRUPTION" FOR SOCIETY AT LARGE WITH RESPECT TO CANADIAN LAYER EGG FACILITIES IN 2012.

Corruption	Performance Reference Points
Convictions for violations of corruption-related laws or regulations	0 convictions = compliant >0 convictions = risky
Fines paid/payable for violations of corruption-related laws or regulations	\$0 = compliant <\$0 = risky

## References

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