

COST EFFECTIVENESS ESTIMATE

STATEMENT OF TRANSPARENCY

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We offer our **Cost Effectiveness Estimate (CEE)** as one of many indicators of organizational efficacy for public review. We approach CEE's for Compassion In World Farming with the following goals:

- **Achieving transparency** in our calculations;
- Painting an **accurate picture** of our direct impact on farmed animals; and
- **Acknowledging complicating factors**, unknowns, and uncertainties.

Direct Impact: Corporate Commitments to Reduce Animal Suffering

Our CEE focuses exclusively on the corporate commitments that we negotiate to reduce farmed animal suffering. We want our data to reflect the **clearest, most direct impact** on farmed animals. We also want you, whether you are a consumer or one of our donors, to see evidence of your impact—for example, Compass Group's **2016 announcement** that improved the lives of 60 million broiler chickens. In this example, CIWF is explicitly named in the company's press release, and the number of birds affected by the new corporate policy is included. While not every corporate commitment is so clear, we do not claim impact or numbers for a corporate commitment if we are not directly involved in the negotiation.

Major Corporate Players and the Domino Effect

Our primary objective is to pursue commitments from major corporate players in the food industry. As the recent cascade of corporate cage-free egg commitments demonstrates, when major companies in an industry commit to higher welfare standards, the rest of the industry tends to follow—known as the domino effect. In 2015, CIWF was directly involved in the cage-free egg negotiation with McDonald's, which proved to be the tipping point after which the rest of industry made similar commitments. Although we were not directly involved in the negotiations with some of the subsequent companies, our previous efforts contributed, if indirectly, to their commitments. Quantifying indirect responsibility can be difficult, so we do not include those numbers. However, in the context of a CEE, it is important to note that our work specifically targets the major corporations that will leverage the rest of the industry and amplify the impact of our work.

Corporate Commitment and Implementation Impact

Obtaining a corporate commitment is the catalyst for changing a corporation's supply chain. Without it, change is not possible. However, in the absence of substantive follow-through, a corporate commitment is just an empty promise. After consultation with other farmed animal welfare organizations and experts, we decided that the cost and effort of obtaining an initial commitment comprises 50 percent of an organization's overall cost. The remaining 50 percent of the cost is attributed to following up with a company in subsequent years to assure the details of the commitment are implemented and deadlines are met.

A corporation cannot transform their supply chain overnight. However, each positive step along the way reduces suffering for the remainder of the commitment timeline and beyond. We calculate this implementation impact using a linear model as an estimate of impact for the duration of the commitment timeline.

For example:

- **Fact:** Company A has 100,000 broiler chickens in their annual supply chain.
- **Fact:** Company A made a commitment to transition to higher welfare over the next 10 years.
- **Assumption:** Company A will convert 10 percent of its supply chain each year until it reaches 100 percent.

During Year 1, Company A will convert 10 percent, or 10,000 broiler chickens, to higher welfare systems. Not only will suffering be reduced for this 10 percent of the company's supply chain during the first year, but also for the subsequent nine years of the commitment.

During Year 2, Company A will convert an additional 10 percent, or 10,000 broiler chickens, to higher welfare systems. Suffering will be reduced for this tenth of the company's supply chain during Year 2 and the subsequent eight years of the commitment.

Continue this pattern of conversion for all ten years of the commitment and sum the number of broiler chickens whose suffering has been reduced. In this example, the total is **550,000** over the entire ten years of the commitment.

The 550,000 broiler chickens' reduced suffering is considered the Implementation Impact. To extrapolate this concept to other commitment timeline durations, you can calculate simple multipliers using the number of animals in the supply chain and the number of years in the commitment.



10 years = 5.5x multiplier
9 years = 5x multiplier
8 years = 4.5x multiplier
7 years = 4x multiplier

Note: To say that a 10-year timeline has more impact than a 7-year timeline is a false interpretation of our model. Once a supply chain has completely transitioned to higher welfare systems, a 100 percent impact is claimed each year thereafter for up to five years.

A comparison between the impact over 10 years from a 7-year commitment and a that of a straightforward 10-year commitment would look like:

100,000 broilers x 4 = 400,000 broilers (implementation impact over 7 years)

To extrapolate the impact of this 7-year commitment over 10 years, we need to add **100,000 broiler chickens** each year for an additional **3 years**.

Total Impact of 7-year commitment over 10 years = 700,000 broilers

Compare this figure to a straightforward 10-year corporate commitment, which impacts **550,000** broiler chickens during its implementation.

Then, for any corporate commitment, we assign **50 percent** of the impact to the year the commitment is made. The remaining **50 percent** will be divided equally over the subsequent years of the commitment timeline. Regarding coalitions, we also assume that the coalition partners who secured the commitment will remain constant for the duration of the implementation.

We also provide corporate commitment tracking and reporting, like our **EggTrack** program, to show donors and supporters the actual progress each company makes along its individual timeline.

Public Engagement and Audience Reach

Reports like our CEE are sometimes considered controversial—many of the strategies an organization pursues may be highly effective, but do not always have clear cause-and-effect relationships to the reduction of suffering for farmed animals. For example, we may produce a viral video about farmed animal welfare that receives 100,000 views on YouTube. But how can this video's impressive reach be converted directly to tangible improvements in the lives of animals? Establishing a clear link between these two variables can be exceedingly complex, and often relies on shaky or subjective assumptions.

For the purposes of our CEE, we report our reach and audience engagement metrics as part of a larger profile of organizational effectiveness. We do not include their impact in our calculations of reduced suffering for farmed animals—to quantify impact, we exclusively look at corporate commitments, the most tangible measure of our our achievements for farmed animals. We consider the impact of our public engagement efforts to be a “built in” feature of these corporate commitments, as public engagement serves as a primary driver of them.

Five-Year Limited Term Impact

Both **Open Philanthropy** and **Animal Charity Evaluators** cite the impact of any corporate commitment to be approximately five years. Most of the current corporate commitments for welfare improvements have an implementation timeline that ends in 2024 or 2025. In cases where a corporation commits to transitioning their supply chain before 2025, we use this five-year limited term impact in our year-by-year calculations for reduced suffering. For example, if a corporation commits to going cage-free by 2020, we assign our reduced suffering impact at 100 percent of their supply numbers for five years, from 2021 - 2025.

Per Dollar Spent

All impact estimates that feature “Per Dollar Spent” or other monetary calculations include ALL dollars spent across our organization. We do not limit our calculations to only “dollars spent on this negotiation” or “dollars spent by our Food Business department.” All dollars means all dollars, including administrative costs, fundraising costs, travel costs, office rental, utilities, and every other expense accounted for in our annual budget.

Coalition Efforts

Often, we work with other animal welfare organizations when negotiating a corporate animal welfare policy. It can be challenging to determine which organizations had more or less influence in obtaining a corporate commitment, and how to quantify collective and individual efforts and expenditures. To further complicate the process, there may be other animal welfare organizations that had simultaneous, but not directly affiliated, efforts to encourage a corporation to change their welfare policies. How and to what degree these outside influences may or may not affect the policy decisions of a corporation is often unclear.

In addition, some corporations prefer to keep details of the negotiations confidential. With respect to all of these issues, we offer a **Coalition Coefficient (CC)** to bring more clarity to the cost-effectiveness of CIWF as part of coalition efforts. Regarding any work with a coalition, we have assigned equal responsibility and cost input to the number of organizations in the coalition. This discount is aggregated and reflected in the CC. Please note that this aggregated number is also weighted by the years of suffering reduced in a corporate commitment.

Here is a fictional example:

We begin with the assumption that these corporate commitments have already accounted for the number of animals in the supply chains that already live at or above the higher welfare standards outlined in corporate commitment.

Corporation #1

Commitment affects: 100,000 laying hens

Coalition: 4 organizations

100,000 laying hens ÷ **4** organizations = **25,000** laying hens per organization (*in terms of cost effectiveness*)

(**100,000** laying hens x **182.5** days of suffering reduced per hen*) ÷ **365** days per year = **50,000** total years of suffering reduced (*coalition-wide*)

(**25,000** laying hens x **182.5** days of suffering reduced per hen) ÷ **365** days per year = **12,500** adjusted years of suffering reduced (*attributed to CIWF*)

Adjusted years of suffering reduced ÷ **total years of suffering reduced** = **0.25** (*the coalition coefficient for laying hens*)

Corporation #2

Commitment affects: 200,000 broiler chickens

Coalition: 2 organizations

200,000 broiler chickens ÷ **2** organizations = **100,000** animals per organization

* We conservatively assume that laying hens are asleep during a 12-hour dark period each day and do not suffer while asleep. See the section entitled "Laying Hen and Broiler Chicken Raw Numbers, Formulas, Processes and Assumptions" below.

Coalition Efforts, continued

(200,000 broiler chickens x 19.58333 days of suffering reduced per chicken*) ÷ 365 days per year = 10,730.59 total years of suffering reduced (coalition-wide)

(25,000 broiler chickens x 19.58333 days of suffering reduced per chicken) ÷ 365 days per year = 5,365.30 adjusted years of suffering reduced (attributed to CIWF)

Adjusted years of suffering reduced ÷ total years of suffering reduced = 0.50 (the coalition coefficient for broiler chickens)

Aggregated Coalition Coefficient = (Adjusted years of suffering reduced for broilers + Adjusted years of suffering reduced for laying hens) ÷ (Total years of suffering reduced for broilers + Total years of suffering reduced for laying hens)

(12,500 + 5,365.30) ÷ (50,000 + 10,730.59) = 0.2942 (the combined coalition coefficient for broilers and laying hens)

While this CC includes a broiler chicken commitment for twice as many broiler chickens as hens, laying hens experience more years of suffering than broiler chickens. As a result, the CC in this scenario is weighted more toward the laying hen commitment than the broiler commitment.

Corporate Supply Chain Estimates

On occasion, corporations will make commitments to higher welfare without revealing the number of eggs, birds, or pounds of meat in their supply chains. In these cases, we estimate numbers relying on other indicators, such as industry analyses, or market share compared to similar or competitor corporations. The **USDA Markets Overview** is one example of these estimates regarding cage-free eggs. In addition, some corporations report their numbers in confidence, without permitting us to publicize them. In such cases, we use these numbers in our overall cost effectiveness estimates, but we will not reveal the names of those companies in association with their numbers.

If we are unable to estimate the number of animals affected by a corporate commitment with an appropriate degree of certainty, we will provide a range estimate or simply note the commitment without incorporating commitment-specific numbers into our CEE.

Announcements vs. Commitments

At times, a corporation with which we are negotiating may make a public announcement about their commitment to higher animal welfare. We welcome such statements as an indication that a corporation intends to shift their policy in a positive direction. However, for the purposes of quantifying cost effectiveness, announcements are not necessarily considered to be commitments. If the statements are not specific to the changes being made and do not attribute timelines to those changes, then they do not result in a demonstrable, quantifiable reduction of suffering for animals. In general, we do not include such announcements in our CEE.

* We conservatively assume that broiler chickens do not suffer during the first half of their lives, that they are asleep during a 4-hour dark period each day, and that they do not suffer while asleep. See "Laying Hen and Broiler Chicken Raw Numbers, Formulas, Processes and Assumptions" below.

Measuring Suffering Reduced



Measuring animal suffering and the extent of which it is reduced are some of the most complicated and controversial calculations, given the uncertainties in animal welfare science and the ethical assumptions required to make such judgments. For example, *is a lower level of suffering for a longer period of time more or less harmful to an animal than a slaughter practice for which animals are conscious and experience extreme levels of suffering for a much shorter period of time?*

Quantifying answers to questions like these, much less finding agreement on accurate methods of calculation, is an extremely complex process. As such, we calculate impact in **days or years of suffering reduced**. While we do not calculate “how much” suffering is reduced, there is wide agreement among animal welfare organizations and scientists as to what higher welfare farming practices tangibly reduce suffering, compared to current factory farming practices.

While we do not quantify the amount of reduced suffering caused by each change in a corporate policy, we can quantify and deduce meaning from the number of changes a corporation makes. More changes mean greater potential for more suffering to be reduced. To provide a more robust profile of impact and cost effectiveness, we offer links to each corporate commitment that detail the quantity and characteristics of changes each corporation will make toward a higher welfare potential.

Costs, Benefits, and Uncertainties Not Considered



The nature of food business changes frequently based upon many unpredictable economic forces, government policies and regulations, food safety concerns, cultural perceptions, and more. It is impossible to incorporate all of these transient factors into a CEE. However, we want to acknowledge those that are unaccounted for in our CEE.

Increasing Welfare Potential: While we are confident that the reforms we seek reduce suffering in farmed animals, the implementation of these reforms by a corporation may or may not reduce suffering, based upon management of the system. We think of each step, such as the transition from caged to cage-free and then to free-range, as possessing a “welfare ceiling.” Comparing each system under ideal management practices, each will have a higher welfare ceiling than the system provides. This does not mean that the system in practice will achieve maximum welfare, because system management plays an important role. For example, enriched cages could provide better welfare outcomes than cage-free systems if the management of the latter is very poor. However, we encourage movement toward higher welfare potential.

Economic Forces: There is the possibility that higher welfare farming may increase demand for chicken, and subsequently, increase the number of chickens being raised and the overall suffering for chickens. There is also the possibility that welfare reforms may increase prices for chicken, resulting in decreased demand and fewer chickens in the system, and thus, an overall decrease in suffering. We do not account for these kinds of difficult-to-predict market forces in our CEE.

Costs, Benefits, and Uncertainties Not Considered, *continued*

Government Policies and Regulations: While sweeping political changes are less common, they can have a significant impact upon American farming and food industries. For example, if the U.S. government ends a trade deal with a country that imports significant amounts of U.S.-grown chicken, that action can send shockwaves through the entire industry. It is difficult to foresee these shifts, and we do not incorporate them into our CEE.

Corporate Follow-Through on Commitments: We acknowledge the risk that some corporations may fail to follow through with their commitments. Assessing this risk is difficult, as it relies upon many factors within a corporation that are unknown or are not easily assessed by external entities like CIWF. That said, we intend to invest the years necessary to follow each corporate commitment and ensure that corporations do not abandon their promises at a later date. Our **EggTrack** effort is just one example of this organizational pillar, and we have a similar project planned for other farmed animal commitments. We will continue to evaluate corporate progress and economic forces, as well as third-party auditing of corporate commitments, and adjust our follow-up as necessary based on the data we receive to ensure that corporations achieve their animal welfare goals by their established deadlines.

Further Perspectives on Cost Effectiveness

For other perspectives on the practice of estimating nonprofit cost effectiveness, check out these articles:

Animal Charity Evaluators (ACE): ["Some Thoughts On Our Cost Effectiveness Estimates"](#)
GiveWell: [Statement on Cost Effectiveness](#)

Public Use

We make the formulas and calculations of our CEE available for public use without permission or license. We simply request a citation for any use or publication.

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Laying Hen and Broiler Chicken

Raw Numbers, Formulas, Processes and Assumptions



Laying Hens

Eggs Per Layer Per Year (UEP): **276**
 Total Days of Life Per Bird Per Year: **365**
 Average Hours of Sleep Discount* (Hyline): **12 hrs/day**
 Days of Suffering Per Bird Per Year: **182.5**

Broiler Chickens

Average Days of Life (NCC): **47**
 Average Hours of Sleep Discount** (NCC): **4 hrs/day**
 Onset of Pain and Suffering***: **23.5 days**
 Days of Suffering Per Bird: **19.58333**



Process and Formulas

For any corporate commitment, we use the following sequential calculations:

- 1 Identify the total number of birds in the corporate supply chain annually;
- 2 Discount the total number of birds by the percentage that are already at or above the welfare standards agreed to in the commitment;
- 3 Divide the total number of birds by the number of organizations in the coalition that negotiated the commitment;
- 4 Multiply by the Implementation Impact multiplier based upon the number of years of the commitment;
- 5 Convert numbers of birds to years of suffering reduced (the "impact");
- 6 Assign 50% of impact to the initial year in which the commitment was made. Divide the remaining 50% equally over the subsequent years of the commitment; and
- 7 Assign 100% impact for each year after the implementation timeline for up to 5 years.

* We make the assumption that animals do not suffer while they sleep. While this assumption may be debatable among some groups, we err on the side of more conservative numbers for calculating the amount of suffering reduced for laying hens and broiler chickens.

** See footnote above.

*** Based upon the 2017 study, "Wooden Breast Myodegeneration of Pectoralis Major Muscle over the Growth Period in Broilers" by H.-K. Shivo, et al. in the journal Veterinary Pathology, we conservatively estimate that the average onset of pain and suffering in broiler chickens to be half of their life.

Laying Hen and Broiler Chicken

Raw Numbers, Formulas, Processes and Assumptions, *continued*



Convert Corporate Egg Commitment to Days of Suffering

- **Total corporate egg commitment** x (1 - 0.X) (*where X is the percentage known or estimated eggs that are already cage-free*) = **# of eggs affected in corporate cage-free commitment**
- **Eggs affected in corporate cage-free egg commitment** ÷ 276 eggs per hen = **# of laying hens per year**
- # of laying hens per year x 182.5 days of suffering per bird = **Days of suffering for corporate commitment**

Convert Corporate Broiler Commitment to Days of Suffering

- **Total corporate broiler commitment** x (1 - 0.X) (*where X is the percentage known or estimated broilers that already meet or exceed the corporate commitment*) = **# of broilers affected in corporate commitment**
- # of broilers affected x 19.58333 days of suffering per bird = **Total days of suffering for corporate commitment**

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