



# Why and How to Measure Food Loss and Waste

## Version 2.0

Brian Lipinski

March 31, 2021

# What's new in Version 2.0?

- **Practical Guide Version 2.0**
  - Updated, simplified guidance on your food loss and waste measurement journey
  - More detail on how to make the business case
  - More detail on how to “make the change” and convince colleagues to take action
- **Business Cost Calculator**
  - A new tool to help you see the potential savings of preventing food loss and waste
- **Short Summary for Executives**
  - Quick facts and tips to get your executive suite on board
- **New Measurement and Prevention Case Studies**
  - Eight great cases from businesses and organizations succeeding in measuring food loss and waste

# Practical Guide – Version 2.0 Contents

- Why Measure FLW?
- The Business Case for FLW Prevention and Reduction
- Making the Change
- Setting Your Scope
- Determining Root Causes
- Selecting Key Performance Indicators and Identifying Impacts
- Sector-Specific Guidance
- Annex A: Methods of Measurement

# Practical Guide – Version 2.0

Commission for Environmental Cooperation



## Why and How to Measure Food Loss and Waste

A PRACTICAL GUIDE - VERSION 2.0

Comisión para la Cooperación Ambiental



## Por qué y cómo cuantificar la pérdida y el desperdicio de alimentos

GUÍA PRÁCTICA - VERSIÓN 2.0

Commission de coopération environnementale



## Pourquoi et comment mesurer la perte et le gaspillage d'aliments

GUIDE PRATIQUE - VERSION 2.0

# Business Cost Calculator

- A downloadable Excel tool to help you develop a business case for your company or organization to reduce food loss and waste
- Calculates your cost of food loss and waste/day and the potential savings that could be realized by various reduction activities
- Available in English, Spanish and French

# Business Cost Calculator (cont.)



WORLD  
RESOURCES  
INSTITUTE



## FOOD LOSS AND WASTE BUSINESS CASE COST CALCULATOR

### KEY

*Please complete gray cells*

*Yellow cells are completed automatically*

### 1) Organization

Organization name	<i>(enter organization name)</i>
Organization type	
Local currency	<i>Mexican pesos</i>
Unit of measurement	<i>kilograms</i>

# Business Cost Calculator (cont.)

## 2) FOOD LOSS AND WASTE (highlight a column heading to learn more)

Food category e.g. "All food" or specific items such as "Apples", "Carrots", "Peaches" etc.	Estimated value of food (per selected unit)	Currency	Estimated amount lost or wasted per day (per selected unit)	Unit of measurement	Cost of FLW per day (in local currency)	% of total FLW (in economic value)
<i>Carrots</i>	<i>25.00</i>	<i>Mexican pesos</i>	<i>4.00</i>	<i>kilograms</i>	100.00	8.51%
<i>Pears</i>	<i>75.00</i>	<i>Mexican pesos</i>	<i>3.00</i>	<i>kilograms</i>	225.00	19.15%
<i>Oranges</i>	<i>50.00</i>	<i>Mexican pesos</i>	<i>2.00</i>	<i>kilograms</i>	100.00	8.51%
<i>Flour</i>	<i>75.00</i>	<i>Mexican pesos</i>	<i>10.00</i>	<i>kilograms</i>	750.00	63.83%
<b>Total</b>	<b>225.00</b>		<b>19.00</b>		<b>1,175.00</b>	<b>100.00%</b>

# Business Cost Calculator (cont.)

## 3) PROPOSED SOLUTIONS TO REDUCE FLW AND RESULTS (highlight a column heading to learn more)

Proposed Solutions	Cost of Solution	Currency	% of FLW affected by this solution (in economic value)	Estimated reduction in Food Loss and Waste, if known (%)	Food Loss and Waste reduced per year by mass/weight	Unit of measurement	Economic value of Food Loss and Waste reduced per year	Payback period (Years)
<i>Smart Fridge</i>	50,000.00	Mexican pesos	56.25%	30%	13,858.59	kilograms	72,372.66	0.69
<i>Employee Training</i>	25,000.00	Mexican pesos	100.00%	15%	12,318.75	kilograms	64,331.25	0.39
<i>New Inventory Software</i>	20,000.00	Mexican pesos	100.00%	5%	4,106.25	kilograms	21,443.75	0.93
<b>Total</b>	<b>95,000.00</b>			-	<b>30,283.59</b>		<b>158,147.66</b>	



# Short Summary for Executives

- Makes the case why businesses should be tackling food loss and waste
- Distills the main points of the guide down to 2-3 slides to illustrate the opportunities associated with measuring and preventing food loss and waste
- Great for internal presentations and conversations as well as for explaining to others why your business is prioritizing food loss and waste prevention
- Available in English, Spanish and French

# Food loss and waste – why and how it matters for your business



The North American economy wastes about \$278 billion worth of food each year. That means your business can save money and operate more efficiently by cutting food waste in your operations.

Reducing food loss and waste can:



Save your  
business money



Preserve  
natural resources



Help feed  
those in need

Measuring and reducing food loss and waste is good for business, people, and the planet – and it's easier to do than you think.

# Food loss and waste – why and how it matters for your business

## What are some common causes of food loss and waste within food businesses?

- Food is damaged or spoiled
- Equipment failure
- Portions too big
- Food expires before sale
- Inefficient manufacturing processes

## How will it help my business financially?

- Raw material costs for food and ingredients increase over time
- Profit margins in food production and sales are often thin
- Food that is lost or wasted instead of sold amounts to lost revenue, so reducing food loss and waste generates new income while also reducing disposal costs

## How will it help my business reputationally?

- Investors and customers are increasingly environmentally and socially conscious when choosing a business to support
- Preventing food waste optimizes operational efficiencies, which can attract investors and shareholders
- Communicating measures to reduce food loss and waste can help to build brand loyalty over time

## What can my business do?

- Measure how much food waste is generated
- Identify the composition and causes of this food waste
- Estimate the amount of food waste that can be prevented
- Calculate the true cost of food waste to your business
- Identify and implement practical solutions to reduce food waste
- Track performance and savings in reducing food waste
- Continually improve over time

## What are the environmental benefits of reducing food loss and waste?

- Reduced greenhouse gas emissions
- Less land needed for landfills
- Lower consumption of resources, including energy and water

## How can I get started?

Check out the CEC guide “How and Why to Measure Food Loss and Waste” at the link below, and explore the case studies, tips, tools and other resources available to help you on your food loss and waste reduction journey.

Visit [www.cec.org/flwm](http://www.cec.org/flwm) to learn more!

# Case Studies

- Real cases featuring businesses who are realizing the benefits of measuring and preventing food loss and waste
- Examples range from across the food supply chain, including businesses and nonprofits
- Gives detailed explanations of what worked for these companies and organizations, so that you can learn from them and implement their lessons into your own food loss and waste measurement and prevention efforts

# Case Studies



Bimbo Canada



Bruized



The Spent Goods Company



Smithfield Foods



San Diego Food System Alliance



Recycle Leaders, Loop Closing and Soilful, Washington, DC



Los Trompos (Coming Soon)



CEDO Centro Intercultural para el Estudio del Desarrollo de Desiertos y Océanos (Coming Soon)



# Why and How to Measure Food Loss and Waste

## Why and How to Measure Food Loss and Waste: A Practical Guide 2.0

This guide will walk you through seven steps for measuring food loss and waste (FLW) within your business, city, state, or country. Use our checklist to track your progress and easily access the most appropriate section.

The revised guide implements findings from focused testing with a diverse set of businesses and organizations across North America.

PRACTICAL GUIDE 2.0

SHORT SUMMARY FOR EXECUTIVES (I)

SHORT SUMMARY FOR EXECUTIVES (II)

BUSINESS COST CALCULATOR



English: [www.cec.org/flwm](http://www.cec.org/flwm)

Español: [www.cec.org/flwm/es](http://www.cec.org/flwm/es)

Français: [www.cec.org/flwm/fr](http://www.cec.org/flwm/fr)

# Many Thanks

- CEC
- ECCC, EPA, SEMARNAT
- Our case study participants
- And everyone who provided guidance and input along the way!