



WORLD
RESOURCES
INSTITUTE

A close-up photograph of a hand holding a small, ripe tomato over a large basket filled with many similar tomatoes. The tomatoes are a mix of red and yellow-orange, suggesting they are ripe. The background is blurred, focusing attention on the hand and the produce.

Food Loss & Waste: Introduction and Overview

November, 2016

Craig Hanson, Global Director (Food, Forests, and Water)

WHY DOES FOOD LOSS AND WASTE MATTER?



1/3 of all food is lost or wasted each year.

WHY DOES FOOD LOSS AND WASTE MATTER?



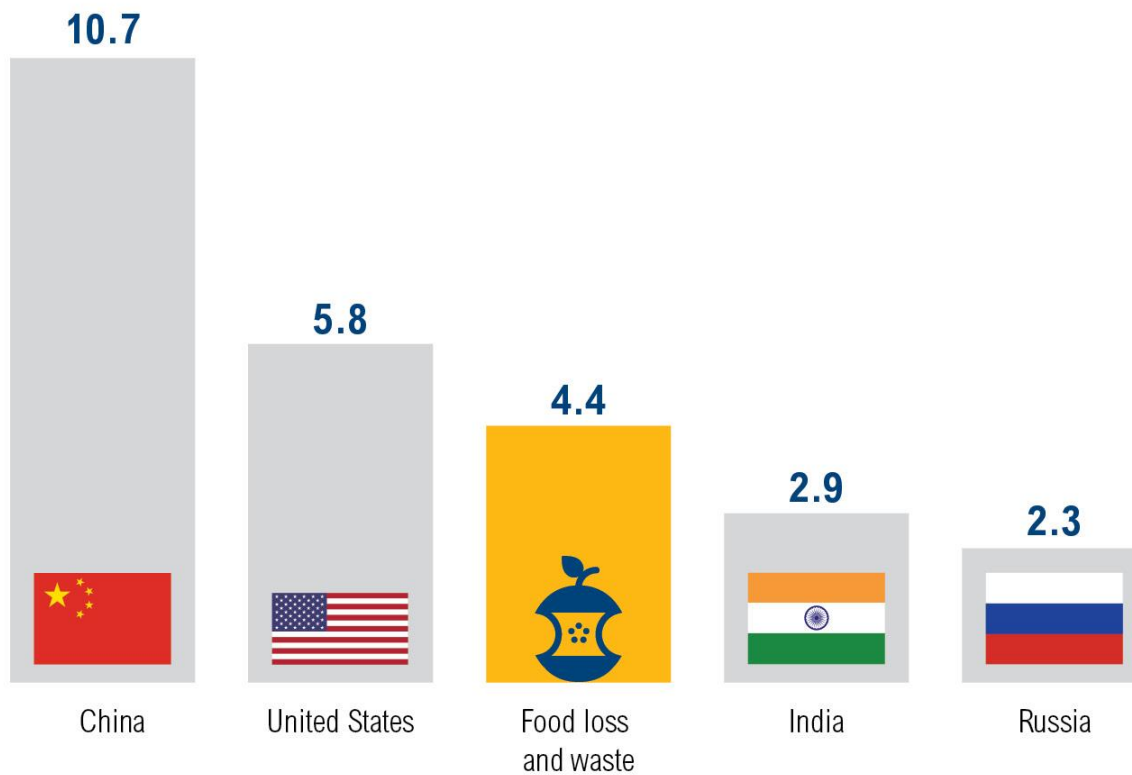
Food loss and waste costs the global economy
\$940 BILLION each year.

WHY DOES FOOD LOSS AND WASTE MATTER?



8% of annual global greenhouse emissions are due to food loss and waste.

If Food Loss and Waste Were its own Country, it Would Be the Third-Largest Greenhouse Gas Emitter



GT CO₂E (2011/12)*

* Figures reflect all six anthropogenic greenhouse gas emissions, including those from land use, land-use change, and forestry (LULUCF). Country data is for 2012 while the food loss and waste data is for 2011 (the most recent data available). To avoid double counting, the food loss and waste emissions figure should not be added to the country figures.

Source: CAIT. 2015; FAO. 2015. *Food wastage footprint & climate change*. Rome: FAO.

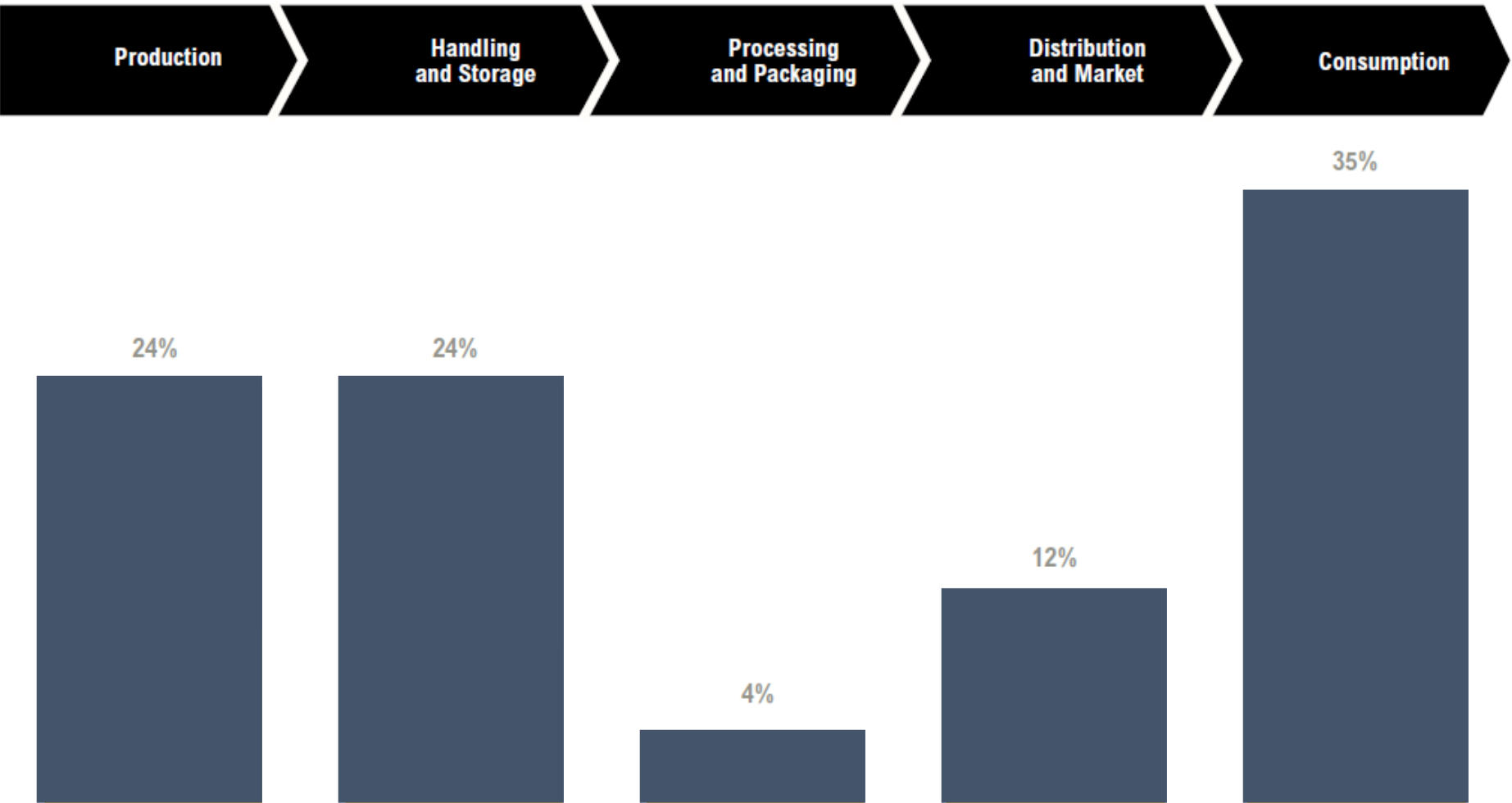


WORLD
RESOURCES
INSTITUTE



FOOD LOSS AND WASTE ACROSS THE FOOD SUPPLY CHAIN

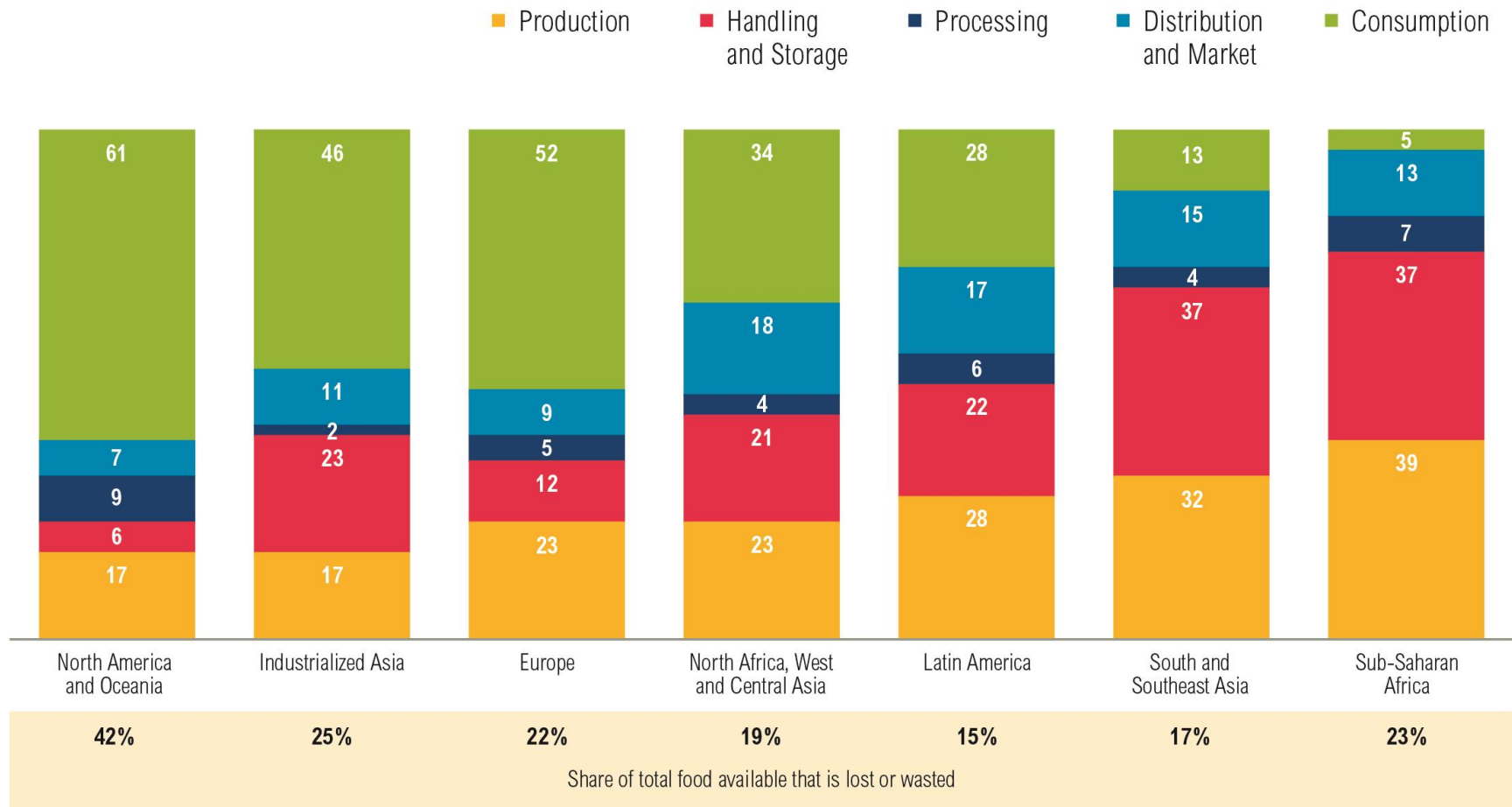
100% = 1.5 quadrillion kcal



Source: WRI analysis based on FAO. 2011. *Global food losses and food waste – extent, causes and prevention*. Rome: UN FAO.

FOOD LOSS AND WASTE ACROSS REGIONS AND SUPPLY CHAIN

(Percent of kcal lost and wasted)



Note: Number may not sum to 100 due to rounding.

Source: WRI analysis based on FAO. 2011. Global food losses and food waste—extent, causes and prevention. Rome: UN FAO.



SUSTAINABLE DEVELOPMENT GOALS



TARGET 12.3

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses



Dave Lewis
CEO
Tesco

Chair of Champions 12.3 Co-Chair of Champions 12.3



Erik Solheim
Executive Director
UNEP



Evelyn Nguleka
President
World Farmers' Organisation
Co-Chair of Champions 12.3



Vytenis Andriukaitis
Commissioner for
Health and Food Safety
European Commission



Peter Bakker
President
World Business Council
for Sustainable Development



John Bryant
Chairman of the Board
Kellogg Company



Paul Bulcke
CEO
Nestlé S.A.



Wiebe Dreijer
Chairman of the
Executive Board
Rabobank



Shenggen Fan
Director General
International Food and Policy
Research Institute



Peter Freedman
Managing Director
The Consumer
Goods Forum



Louise Fresco
President
Wageningen University
& Research



Liz Goodwin
Senior Fellow and
Director, Food Loss
and Waste WRI



Hans Hoogeveen
Amb. and Perm. Rep. of the
Netherlands to UN Organizations
for Food and Agriculture



Marcus Gover
Chief Executive
Officer
WRAP



Yolanda Kakabadse
President
WWF International



Sam Kass
Senior Food Analyst
NBC News
(former White House chef)



Michel Landel
CEO
Sodexo Group



Esben Lunde Larsen
Minister
Ministry of Environment
and Food, Denmark



Gina McCarthy
Administrator
U.S. Environmental
Protection Agency



José Antonio Meade
Secretary
Secretariat of Finance
and Public Credit, Mexico



Denise Morrison
President and CEO
Campbell Soup
Company



Kanayo F. Nwanze
President
International Fund for
Agricultural Development



Raymond Offenheiser
President
Oxfam America



Rafael Pacchiano
Secretary, Department of
Environment & Natural
Resources, Mexico



Cao Duc Phat
Minister, Ministry of
Agriculture and Rural
Development, Vietnam



Paul Polman
CEO
Unilever



Juan Lucas Restrepo Ibiza
Chairman
Global Forum on
Agricultural Research



Judith Rodin
President
Rockefeller Foundation



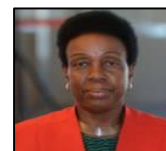
Achim Steiner
Director
Oxford Martin School,
Oxford University



Tristram Stuart
Founder
Feedback



Rhea Suh
President
Natural Resources
Defense Council



Rhoda Peace Tumusiime
Commissioner for
Rural Economy and Agriculture
African Union



Oyun Sanjaasuren
President
2nd United Nations
Environment Assembly



Lindiwe Majele Sibanda
CEO & Head of Mission
Food, Agriculture & Nat.
Resource Policy Network



Feike Sijbesma
CEO
Royal DSM



Andrew Steer
President and CEO
World Resources Institute



Sunny Verghese
CEO and Co-Founder
Olam International



Tom Vilsack
Secretary
U.S. Department
of Agriculture



Senzeni Zokwana
Minister
Ministry of Agriculture,
Forestry and Fisheries, South Africa

SO WHAT HAS BEEN PROGRESS TO DATE?

Target



Measure



Act

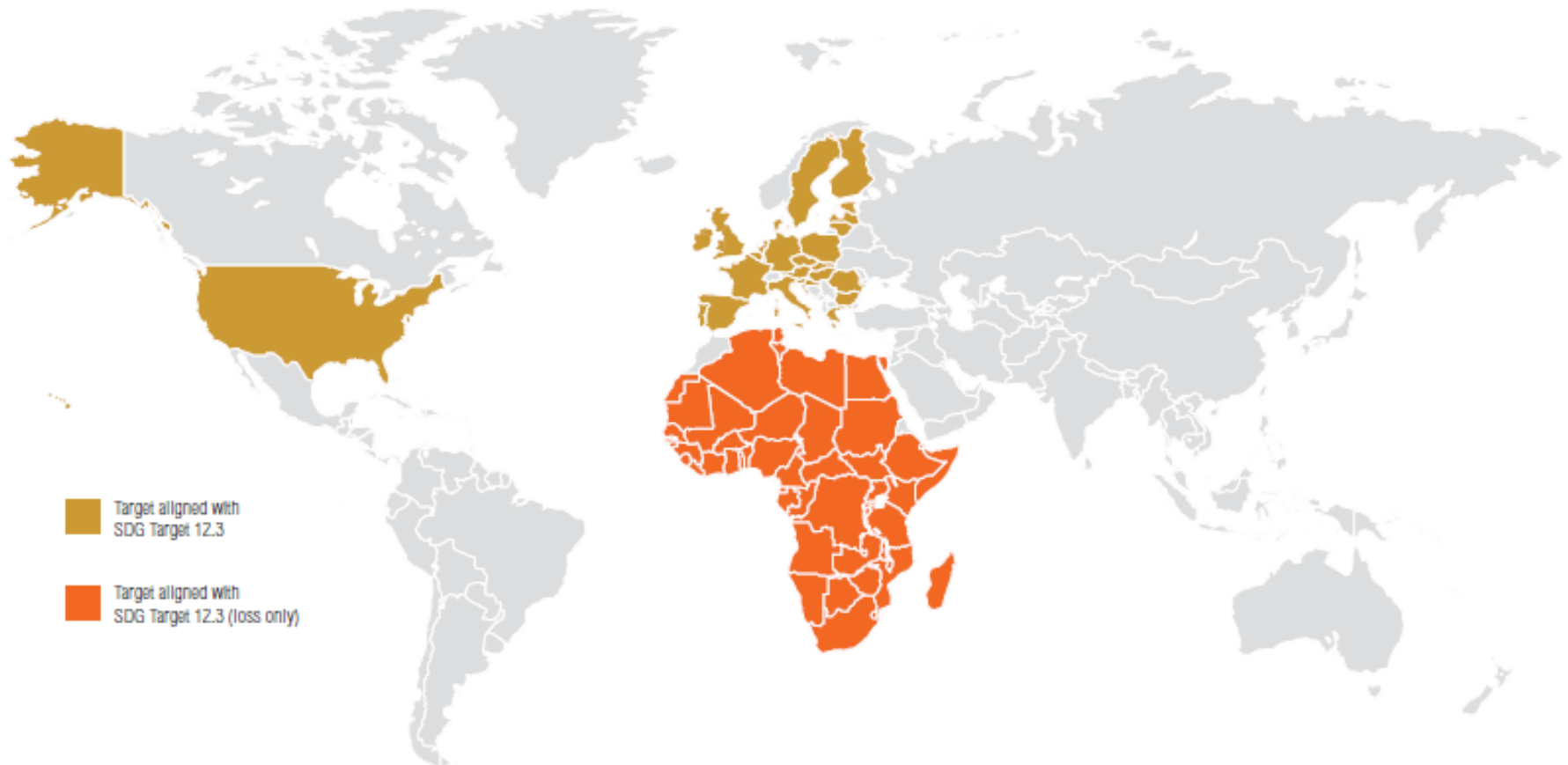


TARGETS SET AMBITION, AMBITION MOTIVATES ACTION





FIGURE 4. National and regional governments with food loss and/or waste reduction targets aligned with SDG Target 12.3 (As of September 2016)



Source: WRI Analysis



GreenBiz

Insights

Events

Videos

Sustainability

400 consumer goods companies commit to cut food waste in half

Robert Kropp

Wednesday, July 15, 2015 - 12:30am

1. Prevent food waste, then maximise its recovery towards the goal of **halving food waste within our own retail and manufacturing operations by 2025 (versus a 2016 baseline)**
2. Contribute to the UN goals by 2030:
 - To halve per capita global food waste at the consumer level
 - To reduce food losses along production and supply chains, including post-harvest losses, and maximise the value of the remaining waste





Targets in:

- Latin America and Asia
- Africa (food waste)
- Cities
- Agribusiness companies

“WHAT GETS MEASURED GETS MANAGED”



Reducing Food Waste

**Where food is wasted**

Around a third of all food grown worldwide may be lost or wasted across the value chain – most notably in agriculture, in the supply chain and with customers. This breakdown will vary by market with greater agricultural and supply chain losses in middle and lower income countries. This infographic illustrates where food waste occurs in the value chain for goods produced for, and consumed in, the UK. This highlights our shared responsibility across the value chain. We commit to reducing food waste not only in our own operations, but also through effective partnership with our producers and suppliers and by helping our customers.



Percentages denote amounts of food wasted as a proportion of that produced for UK consumption.

Source: WRAP UK, 2009/10 data

FOOD LOSS & WASTE PROTOCOL



A multi-stakeholder effort to develop a global
Food Loss and Waste Accounting and Reporting Standard



Working together for
a world without waste

FLW STANDARD LAUNCHED IN JUNE 2016



Food
Loss + Waste
PROTOCOL

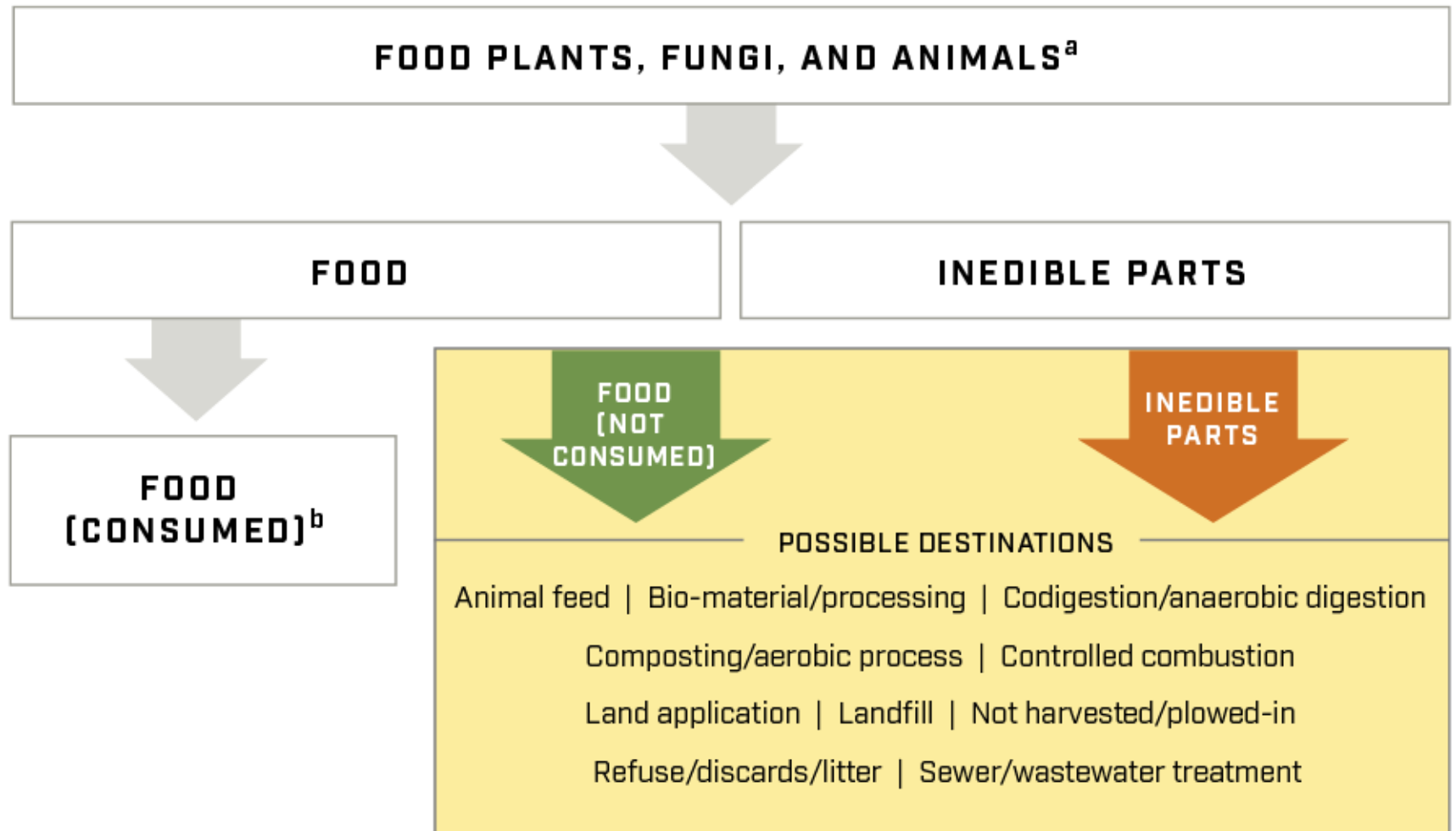
VERSION 1.0

Food Loss and Waste Accounting and Reporting Standard

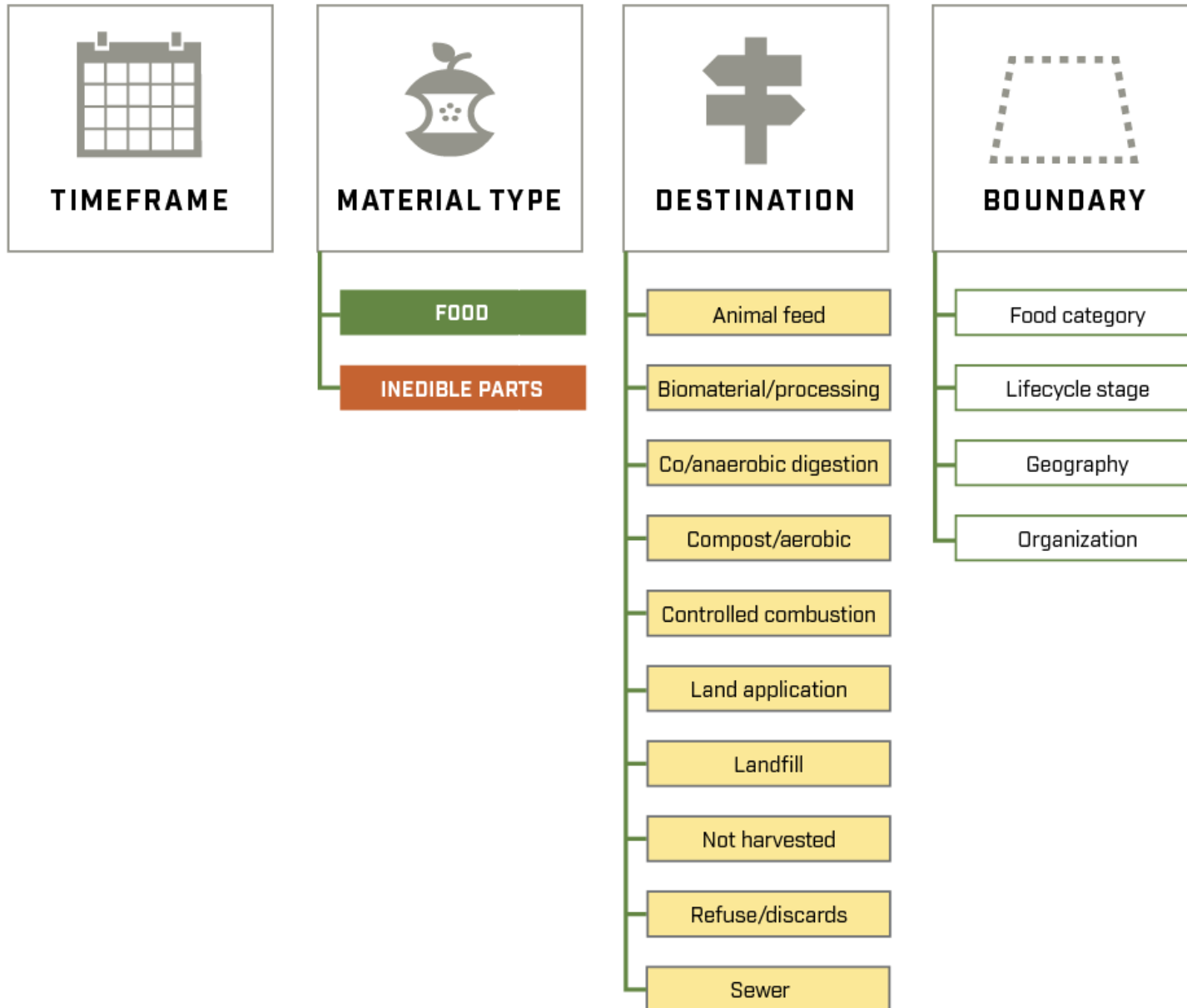
EXECUTIVE SUMMARY



WHAT TO QUANTIFY?



SCOPE OF AN INVENTORY



HOW TO QUANTIFY?

1. Direct weighing
2. Counting
3. Assessing volume
4. Waste composition analysis
5. Records
6. Diaries
7. Surveys
8. Mass balance
9. Modeling
10. Proxy data



WHAT'S NEEDED NEXT?



- Start quantifying
- Generate more data and make it easier to access
- Clarify scope and indicators of SDG Target 12.3

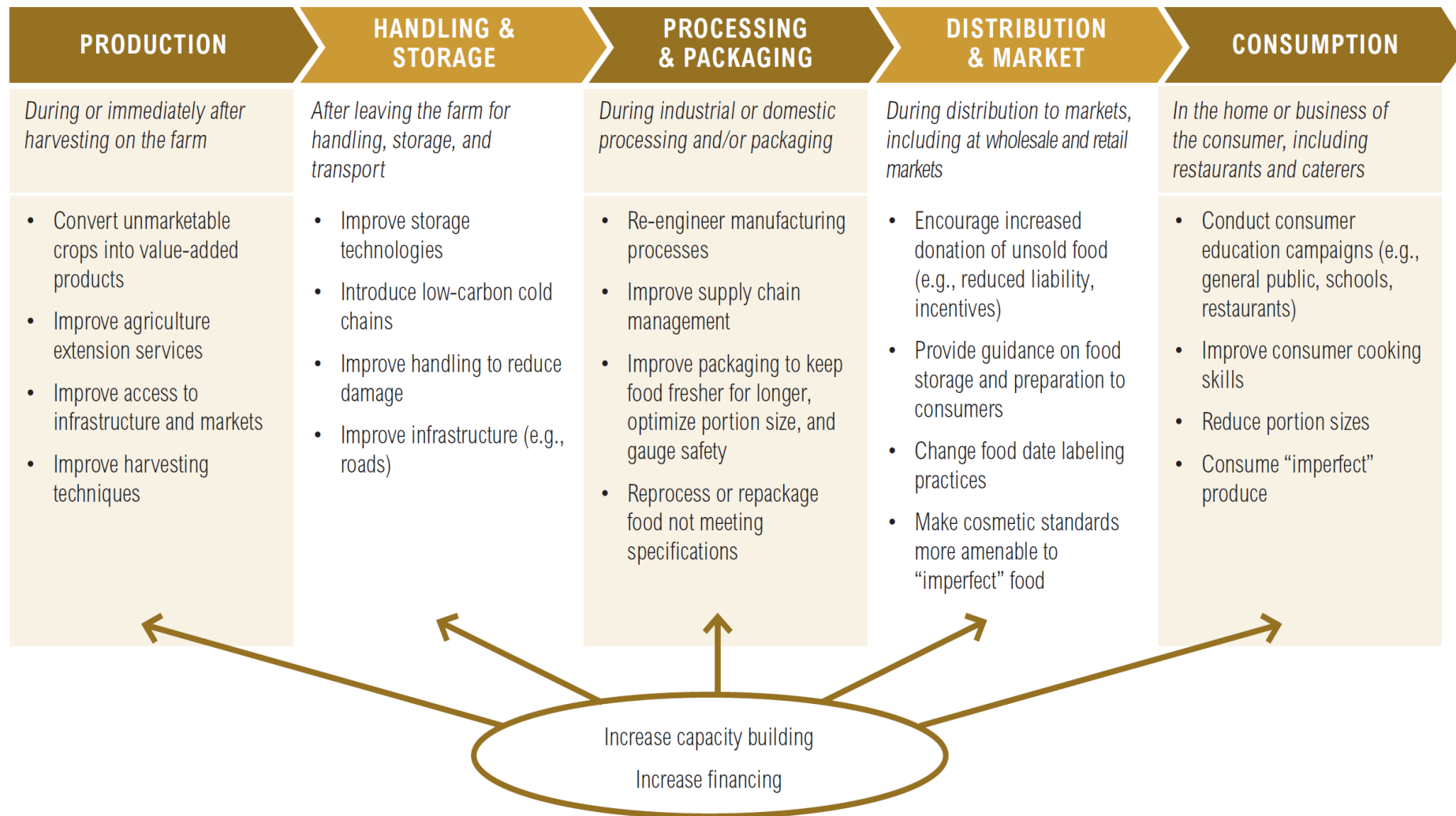
ULTIMATELY WE NEED TO ACT



WORLD RESOURCES INSTITUTE



FIGURE 6. Possible approaches for reducing food loss and waste (not exhaustive)



WHAT'S NEEDED NEXT?



- More action, by more entities, across more regions
- Make the “business case”
- Increase investment
- Accelerate capacity building



THANK YOU



FOOD LOSS & FOOD WASTE