

SUSTAINABLE BEER

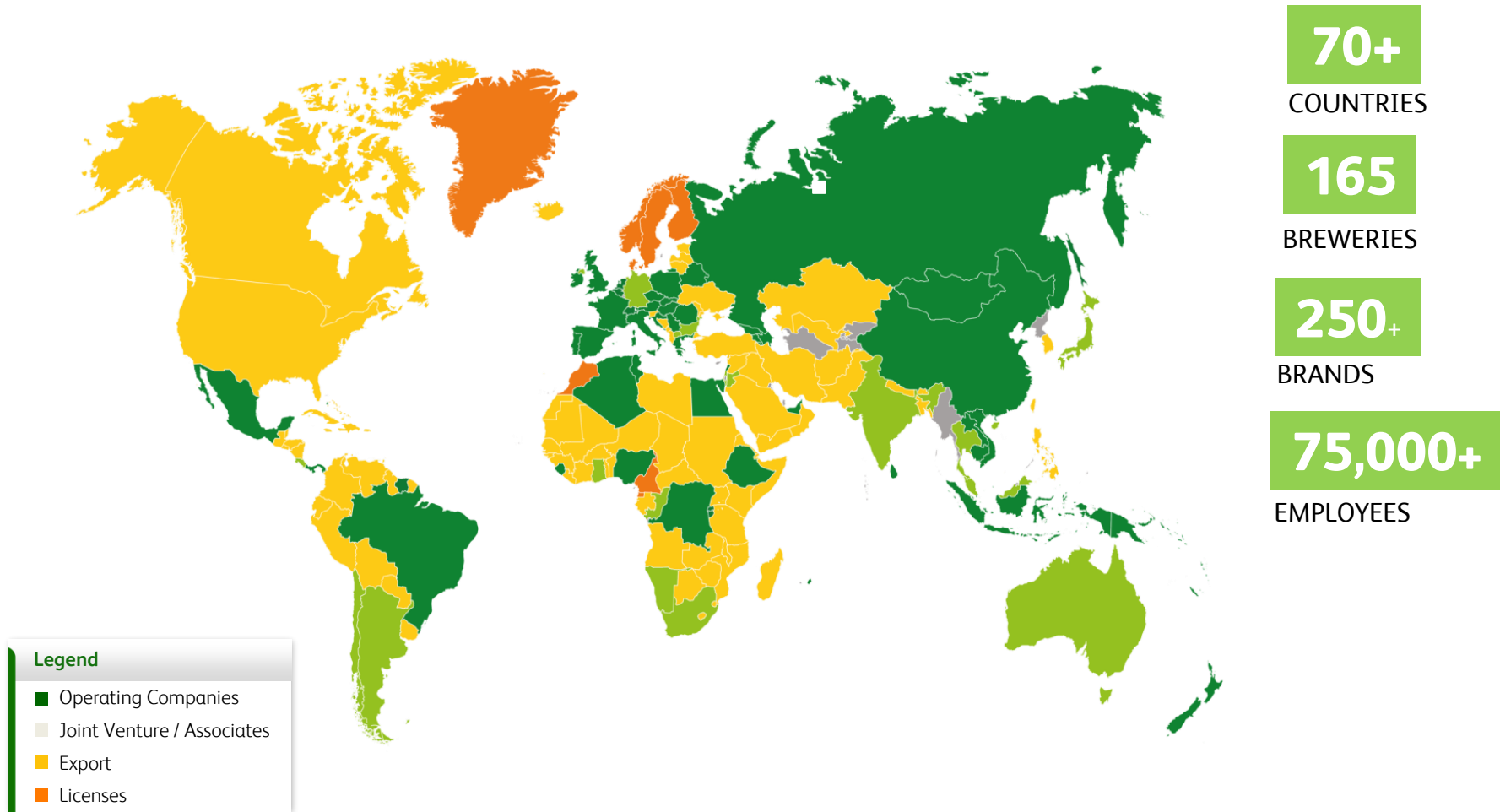
Jan-Willem Vosmeer – Manager CSR

World Water Week, Stockholm 30 August 2017

Session 3: Circular Economies in the Industry Sector











Agriculture



Brewing



Packaging



Distribution



Cooling



WATER: 2020 GLOBAL COMMITMENTS

- Reduce water withdrawal by **30%** to 3.5 hl/hl
- Reduce to **3.3 hl/hl** in water-stressed areas
- Aim for significant **water balancing** in these areas
- **Water treatment** in all our facilities

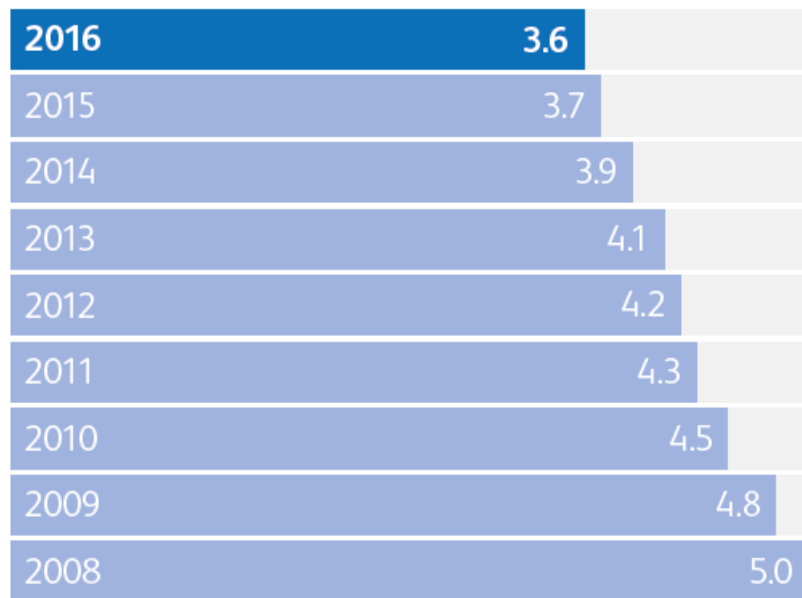


The CEO Water Mandate

Water consumption

hl/hl beer + cider + soft drinks + water

3.6 hl/hl



28%

decrease in water consumption (hl/hl) compared with 2008

1,011

Olympic-sized pools – the equivalent of water we saved in 2016 compared to 2015

3.3 hl/hl

average water consumption in our breweries in water-stressed areas

€13.5m

saved through water efficiency since 2009

NETHERLANDS

sewage sludge from wastewater
generates 6% of the power



Production sites in water-stressed areas

We have been assessing water-related risks since 2010 and focus our immediate efforts on the 23 breweries in water-stressed areas.

- Action
- On hold
- New sites



* All countries except Spain and Tunisia are in scope of partnership with UNIDO.

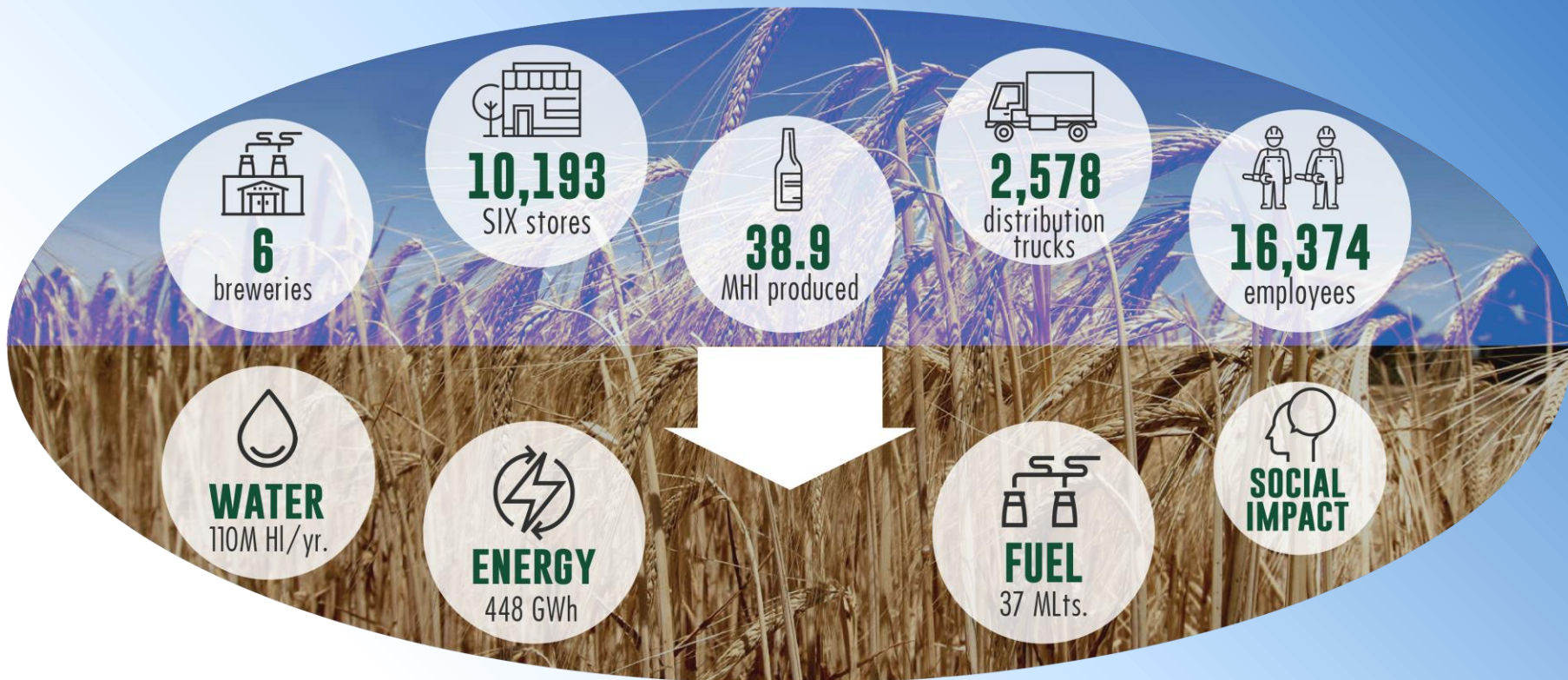
The 13 new sites with potential water risks identified are:

- | | |
|----------------------------|-------------------------------------|
| 1 Stara Zogorka – Bulgaria | 8 Sedibeng (Limpopo) – South Africa |
| 2 Thessaloniki – Greece | 9 Navajoa – Mexico |
| 3 Lamia – Greece | 10 Hanoi – Vietnam |
| 4 Patras – Greece | 11 Jiashan – China |
| 5 Massafra – Italy | 12 Petaling Jaya – Malaysia |
| 6 Assemini – Italy | 13 Ulaanbaatar – Mongolia |
| 7 Constanta – Romania | |



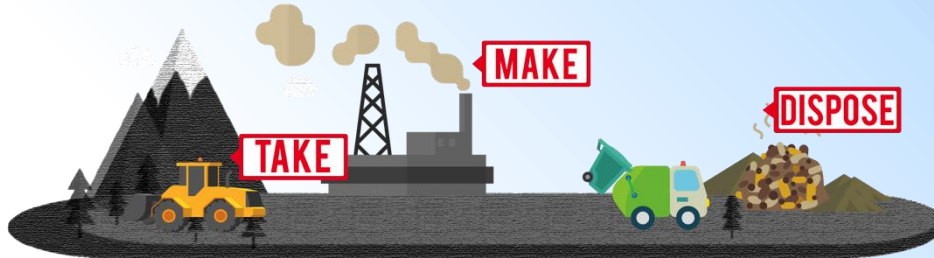
HEINEKEN MEXICO

Footprint is big & growing

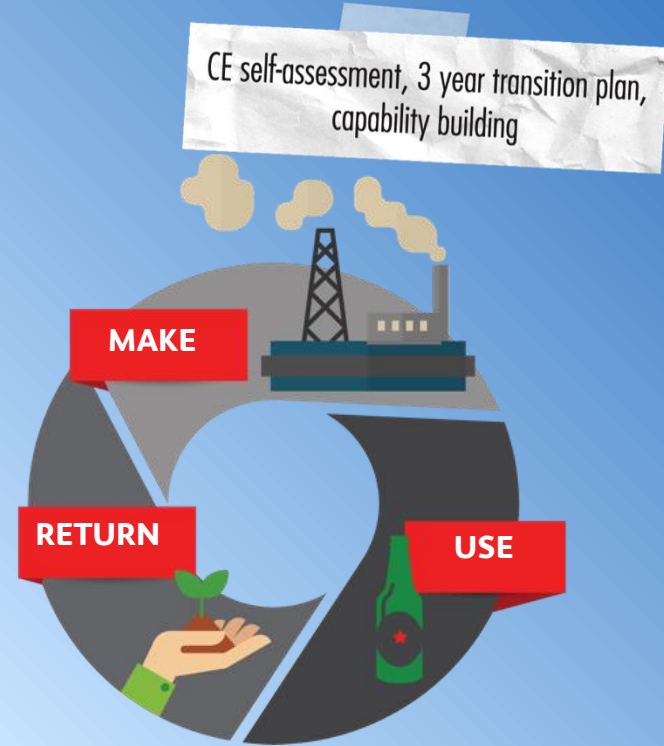
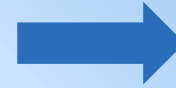


CIRCULAR ECONOMY AS ORGANISING PRINCIPLE

HEINEKEN Mexico first Latin American CE100 member



Linear Economy



Circular Economy

OPERATIONS: ZERO WASTE TO LANDFILL

RECYCLING PAPER
LABELS

3,246
Tons



EDUARDO RUBIO

RECYCLED UNIFORMS

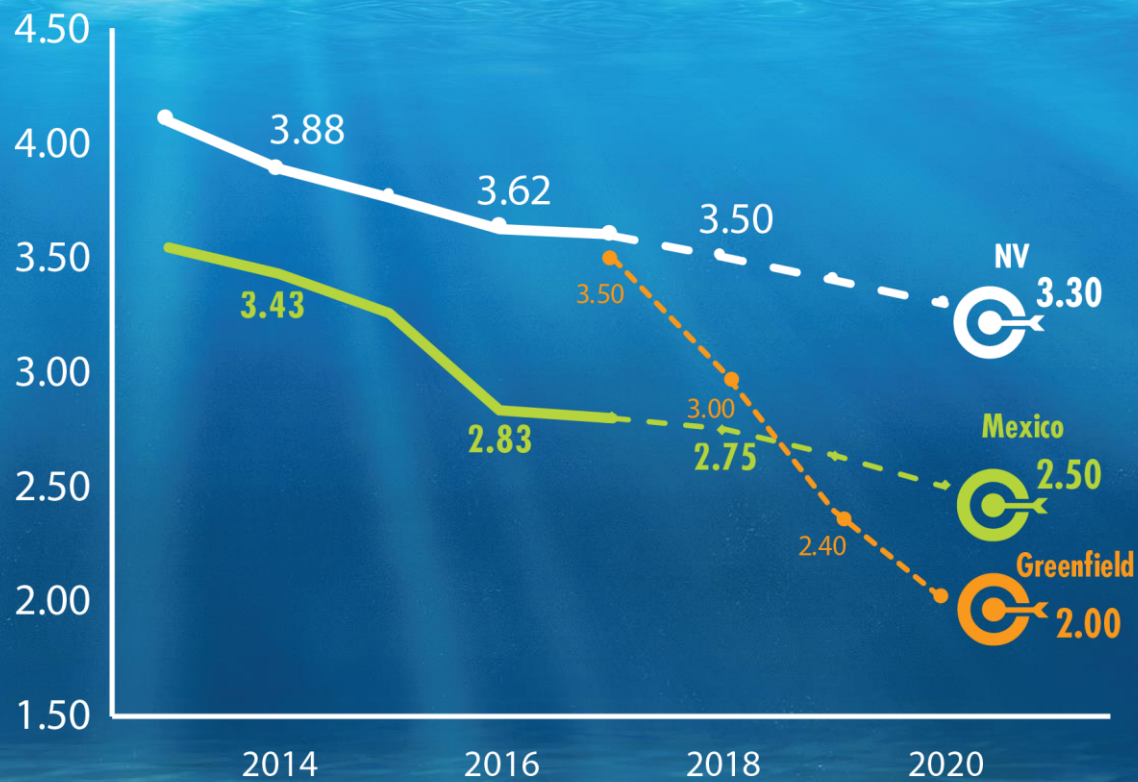
56,000
uniforms/yr.



HECTOR GARCÍA







WATER CONSUMPTION hl/hl

MEOQUI: THE GREENEST GREENFIELD

Water & Energy



THERMAL ENERGY - BOTTLE PLANT
-32% Mj/HI

BIOGAS PRODUCTION
-14% Mj/HI

WATER RECLAIMED
2.0 HI/HI

SOLAR ENERGY
10%

RENEWABLE ENERGY CONTRACTED
90%

SUSTAINABLE BUILDING

WATER BALANCING: > 2 MILLION M3 IN 2020 IN MEXICO

TECATE
Wetland Las Arenitas
5,213,340 HI
Total cost: 1.1 M€

MONTERREY
Waterfund
Reforestation of 1.3M trees
11,555,350 HI
Total cost: 3.3 M€

TOLUCA/GUADALAJARA
Waterfund
Conservation Agriculture
Reforestation of 300K trees
7,929,900 HI
Total cost: 0.5 M€

The Nature
Conservancy 
Protecting nature. Preserving life.

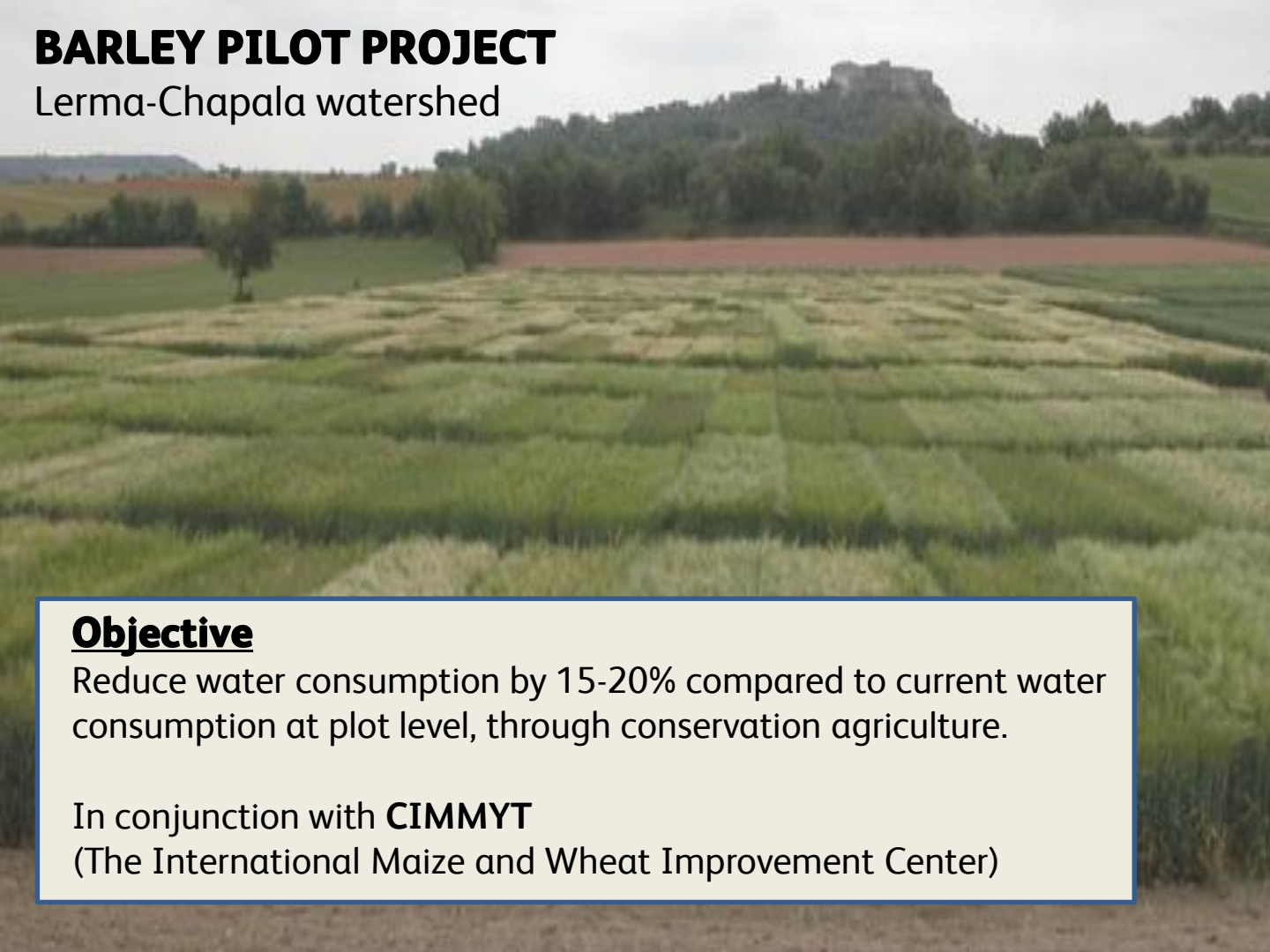
EXAMPLE: REFORESTATION IN CUMBRES NATIONAL PARK



**By end of
2016,
259 ha
reforested
at a density
of 1,000
seedlings
per ha**

BARLEY PILOT PROJECT

Lerma-Chapala watershed



Objective

Reduce water consumption by 15-20% compared to current water consumption at plot level, through conservation agriculture.

In conjunction with **CIMMYT**
(The International Maize and Wheat Improvement Center)

Guanajuato

A hotspot for agriculture in Mexico where groundwater extraction by users outstrips natural recharge on an annual basis.

BREWING A BETTER WORLD



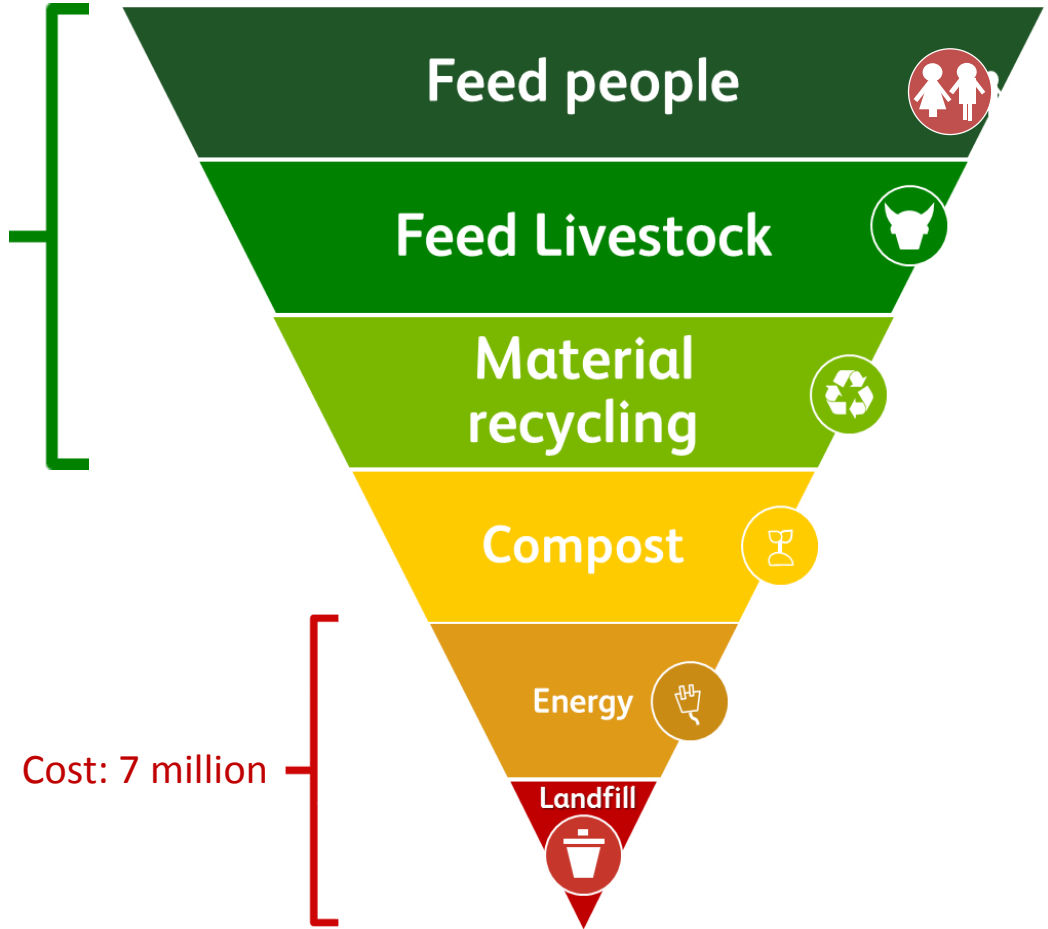
ZERO WASTE TO LANDFILL

2016: **91** of 165 production units

Income: 81 million

POTENTIALLY TAKE OUT

Cost: 7 million



NETHERLANDS

4 windmills: 40% of total
electrical energy



An aerial photograph of a large industrial facility, likely a brewery, in Singapore. The main building has a vast roof covered with rows of solar panels. To the right of the building, there are numerous large, cylindrical stainless steel storage tanks arranged in rows, connected by a network of pipes and walkways. The facility is surrounded by other industrial buildings and parking lots in the background.

SINGAPORE

Tiger Beer brewed by the sun



VIETNAM

Biomass made of rice husk



AUSTRIA

Goss Brewery CO2 Neutral



WATER IS **ESSENTIAL** FOR OUR BREWERIES

