

A close-up photograph of a wheat field. The wheat stalks are golden-brown and slightly blurred, creating a sense of depth. The background shows a vast field stretching towards a clear, light blue sky.

FOOD CHOICES AND THE FOOD ENVIRONMENT

**Alessandra Luglio
Nutritionist - Brazil**

**Are there any healthy
people on a sick
planet?**



Current reality: food paradoxes

- 🌾 Inefficient food system → Obesity X Hungry People
- 🌾 Food production chain → High environmental impact
- 🌾 Food waste → Production, distribution and consumption inefficiency



**2.1 billion
Overweight/obese**

VS.

**750 million
malnourished**

1 in 12 adults has diabetes

International Diabetes Federation. Diabetes Atlas. 2014

30% of the world population is overweight/obese

WHO, 2013

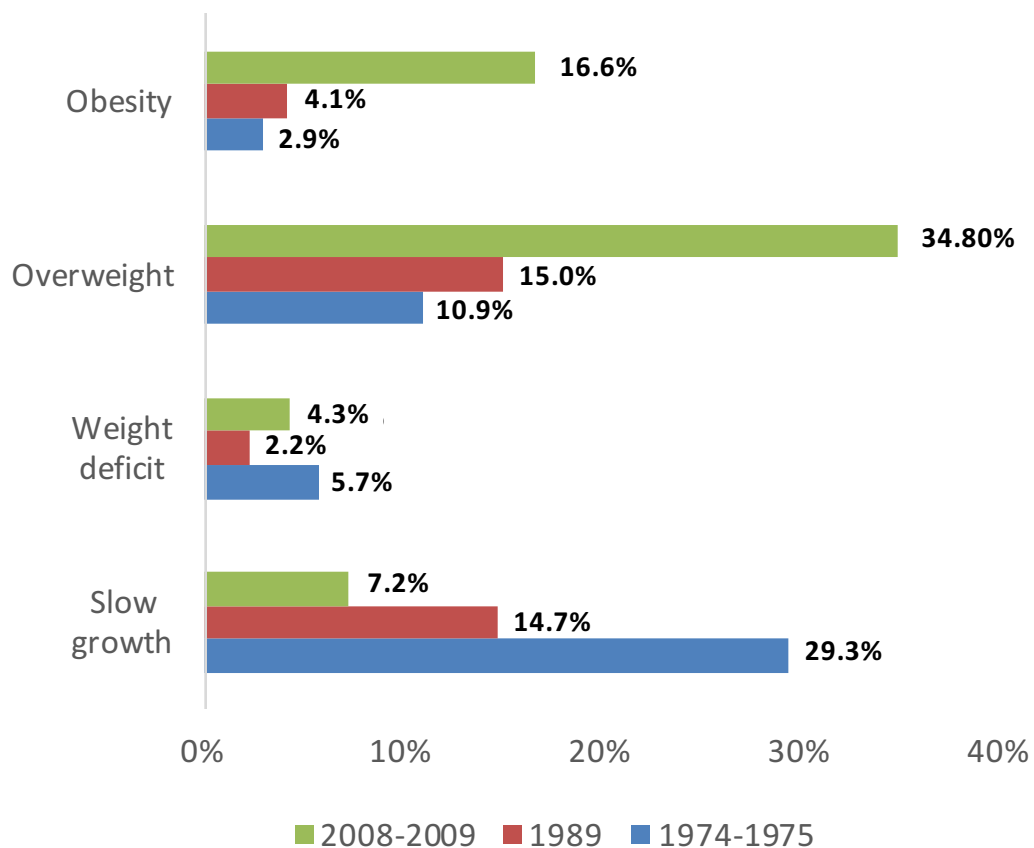
BRAZIL:

- 🌾 56.9% is overweight
- 🌾 20.8% is obese
- 🌾 6.2% has diabetes – 90% has type 2 diabetes

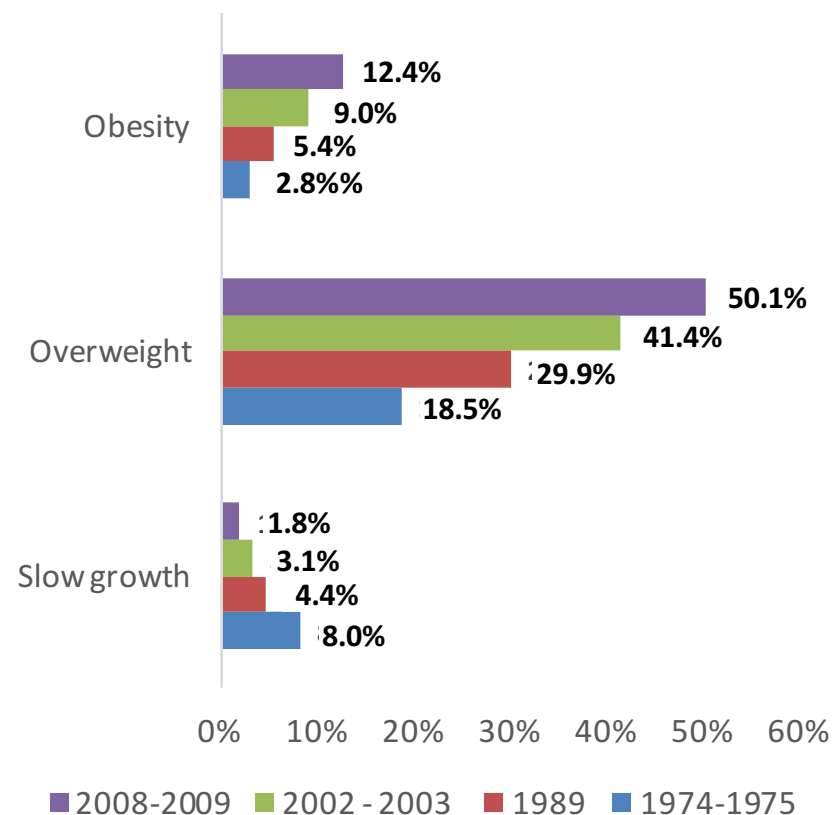
Brasil. Ministério da Saúde. Pesquisa Nacional de Saúde, 2014.

Nutritional transition of the Brazilian population

Evolution of anthropometric indicators in the male population of 5 to 9 years of age

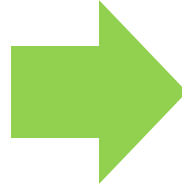


Evolution of anthropometric indicators in the male population above 20 years of age



Inefficient food production chain

1.3 billion tons of food are wasted every year



4 times the necessary to feed almost **800 millions** of malnourished people

Today



2030



Conscious Consumption: we have no choice!

“Nurture people, animals or machines?”

BRAZIL

- 🌾 Grain production: 202 million tons
- 🌾 Soy + corn = 80% of local grain production

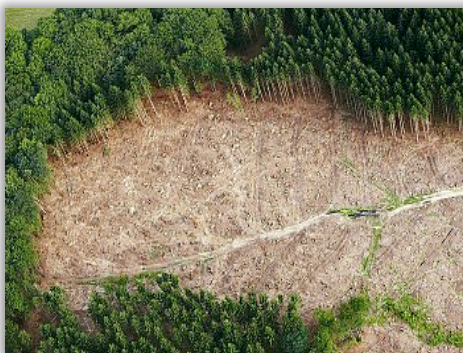
Brasil. Ministério da Agricultura ref. Safra de 2013/14

Corn	→	80 million tons	→	80% used as animal food
Soy	→	95 million tons	→	70 % destined to animal food

Brasil. Ministério da Agricultura ref. Safra de 2013/14

- 🌾 **WORLD MAJOR** pesticides consumer
- 🌾 1 million ton = average consumption of 5.2 kg per person of poison

INCA. Instituto Nacional de Câncer José Alencar Gomes da Silva, 2015



“Nurture people, animals or machines?”

We are 7 billion humans, but we raise and slaughter more than 70 billion land animals on the planet every year for consumption

Global bovine herd: **1 billion heads**

USDA, 2014

BRAZIL:

🌾 **208 million heads = 20% of global herd**

Brasil. IBGE. Estatística da Produção Pecuária, 2015

🌾 **World's major exporter**

Brasil. Ministério da Agricultura, 2014 .

🌾 **World's second largest meat producer**

Brasil. Ministério da Agricultura, 2014 .

🌾 **33.9 million bovine heads were slaughtered in 2014**

Brasil. IBGE. Estatística da Produção Pecuária, 2015





“Is it efficient?”

Intensive Animal Farming → 1 kcal animal = 10 kcal vegetable

Cattle breeding → 1 kcal animal = 30 kcal vegetable

1 ox



210kg of meat



**Takes 4 hectares
of land**



Time: 4 to 5 years



34 tons of corn



23 tons of weath



32 tons of soy



8 tons of beans



✿ The crop-livestock sector is responsible for **90%** of global water consumption → **1/3** is used for animal food production

✿ To produce **1kg** of meat → **10 to 20 thousand** liters of water: **20 times more** than to produce 1kg of vegetable based food.

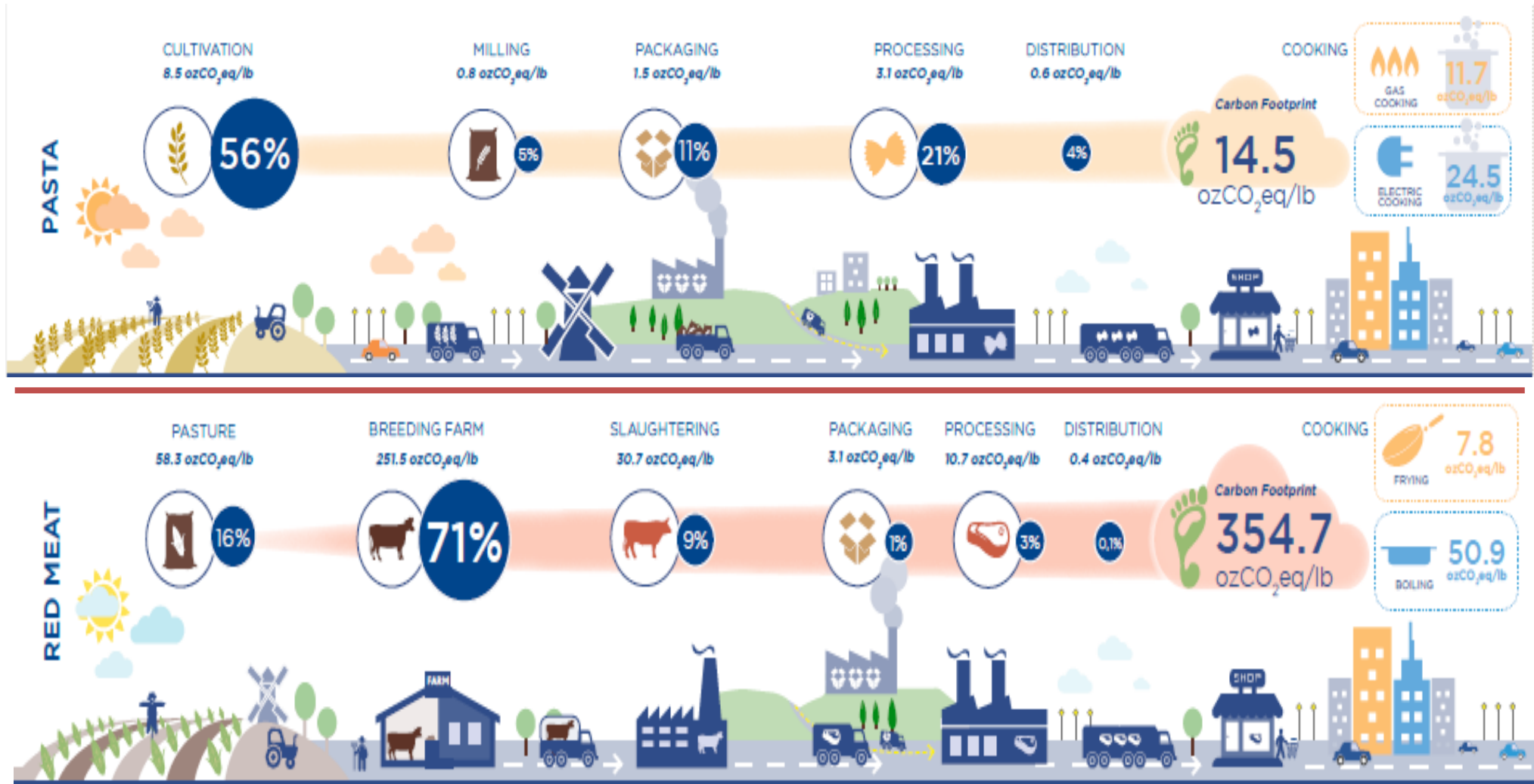


Mekonnen MM, Hoekstra AY 2011. *National water footprint accounts: the green, blue and gray water footprint of production and consumption. Main report.* UNESCO – Institute for Water Education.

“Water for People, Water for life”. United Nations World Water development Report, UNESCO, 2003



Production chain: greenhouse gases



2014 BRAZILIAN FOOD GUIDE



Recommendations on diet should consider the impact of production forms and distribution of food on social justice and environmental integrity

PLANT BASED FOOD is the base for a nutritious, balanced, tasty and culturally appropriate diet, promoting a socially and environmentally healthy food system.

Pasta = grain + water

- 🌾 High sustainability index
- 🌾 Low environmental impact production chain = from the farm to the table
- 🌾 Simple production, easy to transport and to store during the whole year
- 🌾 Energetic base for the mediterranean diet
- 🌾 Protein content:
 - ✓ **100g** of wholewheat pasta = **12.5g** of protein = **16%** VCT per portion
 - ✓ **100g** of traditional pasta = **11g** of protein = **14%** do VCT per portion

Pasta = sustainable food

Wholewheat pasta + olive oil + vegetables + nuts and/or legumes make a healthy and balanced dish:



🌿 **Simple**

🌿 **Healthy**

🌿 **Nutritionally balanced**

🌿 **Low environmental impact**

🌿 **Culturally acceptable**

🌿 **Low cost**

🌿 **Economically fair**

Alessandra Luglio, Nutritionist

- ✦ *Nutritionist with over 15 years of experience in the clinical area.*
- ✦ *Graduated from the University of São Paulo in 1996.*
- ✦ *Expert in vegetarian diet and vegetarian healthy recipes, and also an expert in sustainable diets.*
- ✦ *Responsible for the organization of sports and nutrition events, conferences and exhibitions, and she also teaches extension classes in sports nutrition and functional food.*
- ✦ *Consultant and technical expert responsible for important food brands and supplements for health and sport.*
- ✦ *Serves as the Food and Nutrition ambassador in Brazil for the Barilla Center for Food & Nutrition Foundation (BCFN).*

