



# TEEB for Agriculture and Food:

**Expert workshop on SDGs/chemicals & waste  
Geneva, April 2016**

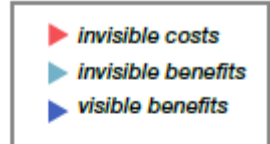
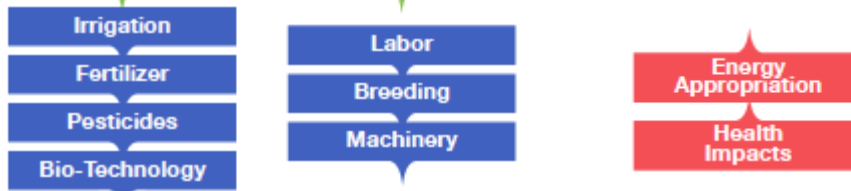


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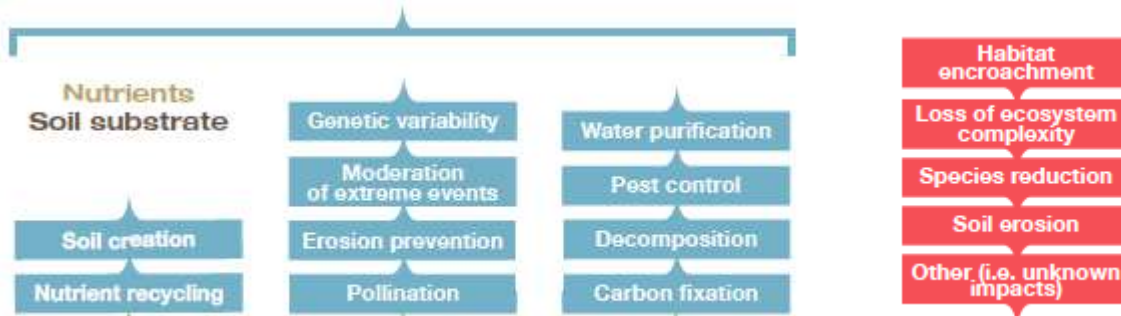
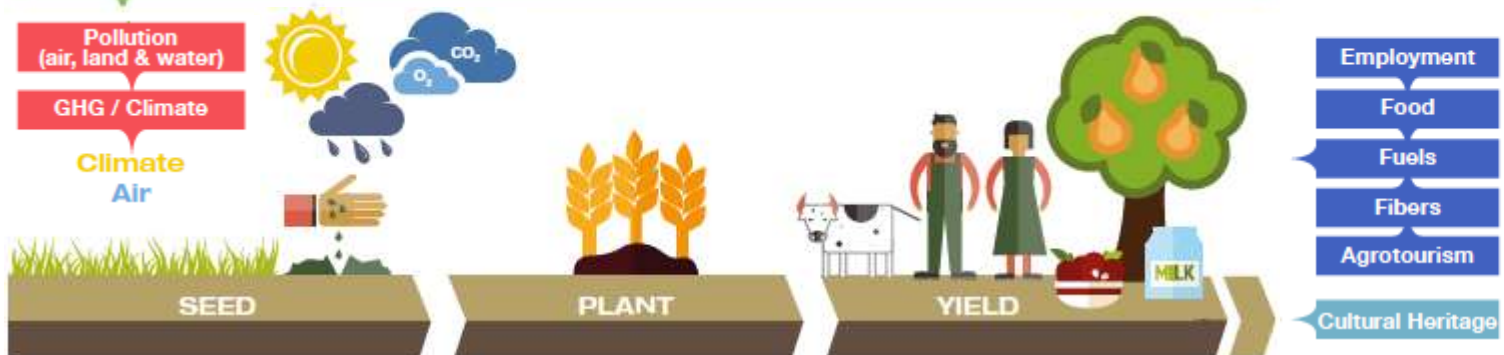
# TEEB for Agriculture & Food

## The 'eco-agri-food' system complex

### HUMAN (economic & social) SYSTEMS



### AGRICULTURAL & FOOD SYSTEMS



### BIODIVERSITY & ECOSYSTEMS



# TEEB AgriFood > SDGs

## GOAL 2

END HUNGER, ACHIEVE FOOD SECURITY AND  
IMPROVED NUTRITION AND PROMOTE  
SUSTAINABLE AGRICULTURE

**SUSTAINABLE DEVELOPMENT GOALS**  
More at [sustainabledevelopment.un.org/sdgsproposal](https://sustainabledevelopment.un.org/sdgsproposal)

## GOAL 15

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF  
TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE  
FORESTS, COMBAT DESERTIFICATION, AND HALT AND  
REVERSE LAND DEGRADATION AND HALT  
BIODIVERSITY LOSS

**SUSTAINABLE DEVELOPMENT GOALS**  
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## Why is TEEBAgriFood focusing on health externalities?

- **Annually, the world uses about 3 million tons of pesticides**
  - an estimated 0.1% reach the target pests
  - Environmental impacts can include widespread decline of birds, amphibians, and beneficial insect populations
- **Pesticides can also enter human bodies directly and through food chains**
  - traces of DDT, lindane and dieldrin in fish, eggs and vegetables still exceed the safe range in India
- **As many as 25 million agricultural workers worldwide experience unintentional pesticide poisonings each year**

# How can TEEBAgriFood Provide Evidence at the health-ecosystem interface?

## 1. Individual sector studies to compare health impacts

- Production processes *versus* production systems

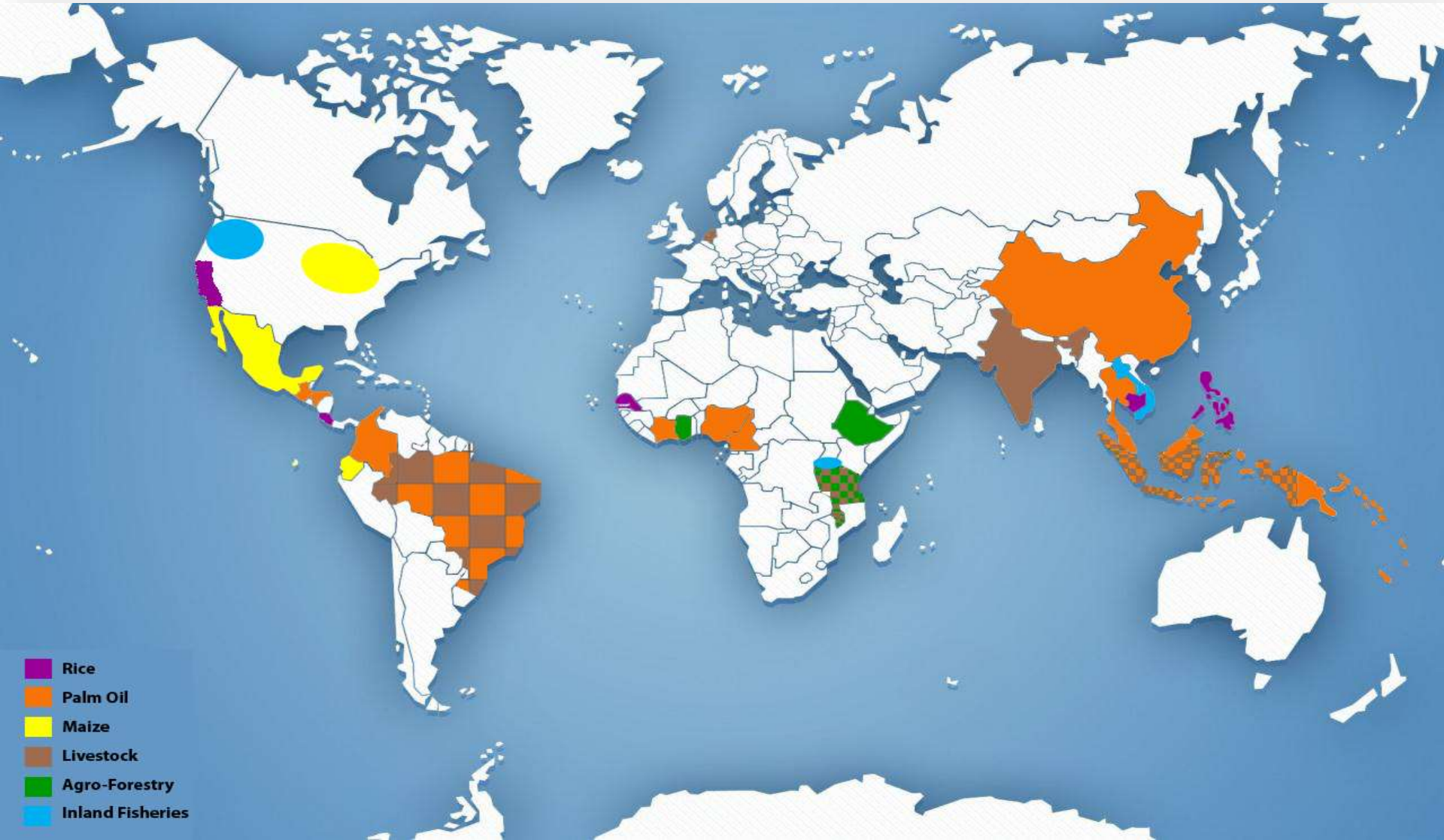
## 2. Food chain analysis: what policies can change dietary patterns and health outcomes?

- Strategic behavior: asymmetric and incomplete information and links to **food labelling**
- **Trade** agreements
- **Behavioral** economics – ‘nudging’ behavioral change *versus* regulatory and pricing/market interventions

## 3. The economic metric

- **how to value changes** in health outcomes?

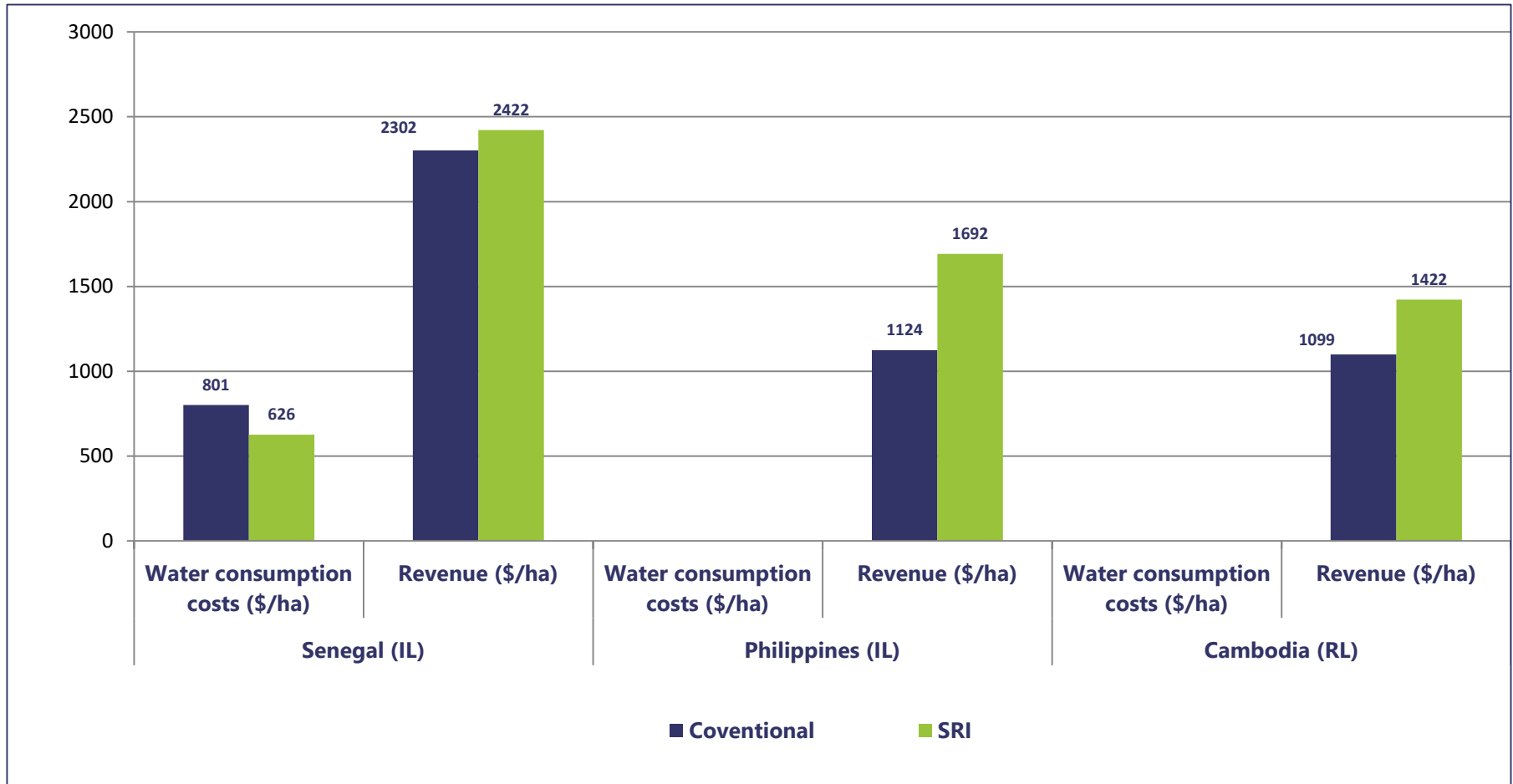
# Feeder Studies



- Rice**
- Palm Oil**
- Maize**
- Livestock**
- Agro-Forestry**
- Inland Fisheries**



## Increasing rice yields vs Reducing water consumption





# Thank You!



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