In order to feed our world without destroying it, a holistic type of agriculture is needed, and we have a choice. Here we compare the current high-input industrial system with a renewed vision for agriculture: the agroecological system.

**AGROECOLOGY**
- Embraces complex methods of land stewardship
- Creates wildlife habitats and maintains predator-prey relationships
- Integrates livestock, crops, pollinators, fish, trees, and water for integrated nutrient and pest management
- Treats soil as the building block and reflection of community/ecological health
- Helps balance aquifer withdrawals and recharge

**INDUSTRIAL AGRICULTURE**
- Relies on mechanization and labor-saving policies, consolidates land and resources into fewer hands
- Increases output of waste, pollution, animal feces
- Causes soil erosion and compaction resulting in decreased capacity to retain water
- Destroys wetlands and wildlife habitats

**FARM OUTPUT & YIELDS**
- Can double and triple yields from hillside farms and rain-fed agriculture
- Increases risk of infestation, disease, and pesticide-resistant pests

**SOIL**
- Depletes water tables, causes salinization and pollution of aquifers and soils
- Nearly 50% of all soils worldwide are decreasing from industrial agriculture

**FIELD LEVEL BIODIVERSITY**
- Maintains biodiversity and ecosystem services
- Does not pollute waterways
- Can host a variety of crops on one parcel

**WATER SYSTEM**
- Conveys soil and water through terracing, contour farming, intercropping, and agroforestry
- Conserves soil and water through terracing, contour farming, intercropping, and agroforestry
- Increases nutritional diversity crucial for women and children

**HUMAN COMMUNITIES & LIVELIHOODS**
- Involves local community in the growing process from seed to mouth
- Reduces rural poverty, strengthens local economy, and supports women, who make up 43% of the world’s agricultural labor force
- Improves farmers’ ability to respond to climate change

**ATMOSPHERIC & CLIMATE IMPACTS**
- Captures and retains CO2 in system
- Does not pollute waterways
- Relies on increasing amounts of external chemical inputs to boost unsustainable yields, killing soils worldwide
- Controls organic matter of lakes and massive ocean dead zones

**CO2 POLLUTION**
- Contributes one-third of global greenhouse gas emissions
- Causes malnutrition, heart disease, and obesity

**INDUSTRIAL AGRICULTURE RISKS**
- Reduces capacity of land to capture and sequester carbon
- Puts global food system at greater risk to extreme weather events
- Leads to massive unemployment, rural-urban migration, depressed rural economies, and gross gender imbalances
- Increases output of waste, pollution, animal products

**CLIMATE STRATEGIES CO2 POLLUTION**
- Mitigation
  - Reduces agriculture’s impact on climate by working within natural systems.
- Adaptation
  - Improves farmers’ ability to respond to climate change.
- Resilience
  - Increases rural poverty, strengthens local economy, and supports women, who make up 43% of the world’s agricultural labor force

**AGROECOLOGY SMOKES vs INDUSTRIAL AGRICULTURE**

**SUMMARY**
- **Current reality**
  - 1 billion people in the world are hungry.
  - Another billion are overweight.
  - One-third of food produced is wasted.

**Future possibilities**
- Agroecological strategies can better feed the world, fight climate change and poverty, and protect soil and water while maintaining healthy, livable communities and local economies.

**SOURCES**
- Petrochemical production and use
- Risks
  - Reduces capacity of land to capture and sequester carbon
  - Puts global food system at greater risk to extreme weather events

**FIELD LEVEL**
- Increases input of water, fertilizer, and pesticides

**AGROECOLOGY VS INDUSTRIAL AGRICULTURE**
- Nearly 50% of all soils worldwide are decreasing from industrial agriculture.