Inclusive Sustainable Rice Landscapes
Securing multiple environmental benefits and improved farmer welfare
Why Rice?

- Daily staple for >3.5 billion people
- 19% of global calorie supply
- Livelihoods for >1 billion people
- Produced on 160 million hectares
- 15% of world’s wetlands
- Uses 40% of world’s irrigation water
- 10% of global methane emissions

By 2050:
- Production needs to increase by 25% to meet demand
- 15–20 million hectares may suffer water scarcity
Why Rice?

By 2050:

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On farm impacts (rice production systems)
- Pesticide misuse
  - Impacts on farmers’ health
  - Degradation of soil health
  - Resistant pests and diseases
  - Loss of rice-field food fauna

- Methane emissions from paddy rice production
- Overconsumption of water for rice production
- Expansion of rice production

Off farm impacts (broader rice production landscapes)
- Contamination of runoff and water tables
- Fish mortality in river systems
- Impacts on the health of the broader population

- Landscape-wide water shortage
- Loss of natural ecosystems
- Disruption of water flows
- Soil erosion

Impacts outside of the landscape
- Loss of globally important rice-field BD
- Impacts on the global climate
- Watershed degradation
- Disruption of water flows
- Soil erosion
- Loss of irrigation potential in rice production systems
- Sedimentation of paddies and irrigation infrastructure
Food Systems, Land Use and Restoration Global Impact Programme

- Promoting **sustainable food systems** to meet growing global demand
- Promoting **deforestation-free agricultural commodity supply chains** to slow loss of tropical forests
- Promoting **restoration of degraded landscapes** for sustainable production and to maintain ecosystem services

Inclusive Sustainable Rice Landscapes County Programmes

- **Sustainable management practices** in rice-based production systems
- **Market-based instruments** supporting sustainable production
- **Landscape management** for ecosystem services
Value of a landscape approach

- Recognition that the root causes of problems may not be site-specific
- A combination of natural resource management with environmental and livelihood considerations
- Consistent with a systems view of environmental management
- Encourage early assessment of trade-offs and innovation in applying solutions
Inclusive Sustainable Rice Landscapes Approach

**Crop management**
- Alternate wetting/drying
- Fertilizer management
- Improved seed (including traditional)
- Sustainable diversification
- Traditional production systems

**Markets**
- Sector sustainability standards
- Public awareness/brand building
- Green value chains

**Landscapes**
- Protected and restored landscapes providing ecosystem services

**Value chains**
- Commodity platforms
- CSR
- Marketing and value adding
- Improving farmer linkages
- Certification systems

**Water accounting**

**Green infrastructure**

**Farmer-based approaches**
- Extension services
- Farmer capacities
- Farmer field schools
- Seed supply
- Seed fairs

**Agro-pollutant management**

**Land use planning**
- Direct investments
- Financial instruments
- Land use planning
- Governance
- Technical capacities

**Restoration**

**Commodity Platforms**

**CSR**

**Marketing and Value Adding**

**Improving Farmer Linkages**

**Certification Systems**

**Direct Investments**

**Financial Instruments**

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**Seed Supply**

**Seed Fairs**
Inclusive Sustainable Rice Landscapes = Environmental and Social Benefits

Healthy watersheds, biodiversity protection

Agricultural biodiversity

Diverse, sustainable livelihoods

Water use efficiency

Resilience

Reduced agrochemical pollution

GHG reductions

gef
Food and Agriculture Organization of the United Nations
UN environment
wbcsd
Sustainable Rice Platform
german cooperation
Implementation by giz
IRRI
Country Programmes Under Development

- Indonesia
- Vietnam
- India
- Thailand
- Myanmar
- Malaysia
- Cambodia

Logos: gef, Food and Agriculture Organization of the United Nations, UN Environment, WBCSD, Sustainable Rice Platform, German Cooperation, IRRI
Thank you