

Challenges: Rising demand, falling productivity

- Slowing growth in production
- Diminishing marginal returns to inputs
- Urbanization
- Competition for water, land, labour
- Rising energy and fertilizer prices
- Climate change

Rice sustainability- key challenges



Livelihoods and poverty alleviation

- Grown on 160 million ha, 90% in Asia, 144 million smallholders
- 20% of the world's population depends on rice cultivation for their livelihoods

Food security

- Rice is the staple for > 3.5 billion people
- Declining productivity growth (from 2.2% during 1970-90 to < 0.8% since)

Resource use efficiency (water, soil, fertilizers, pesticides, labour)

- A strategies
- Rice production uses 34-43% of the world's irrigation water
- Declining global rice area due to land conversion, salinization and water scarcity

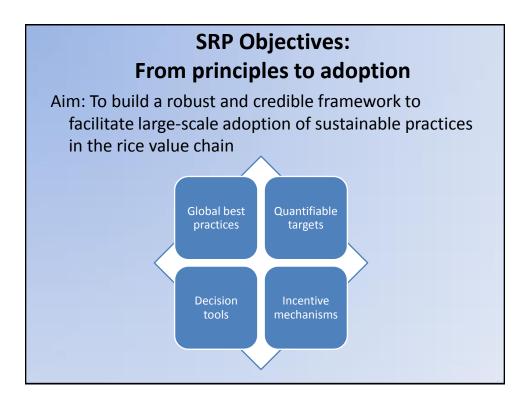
Environment, biodiversity, climate change

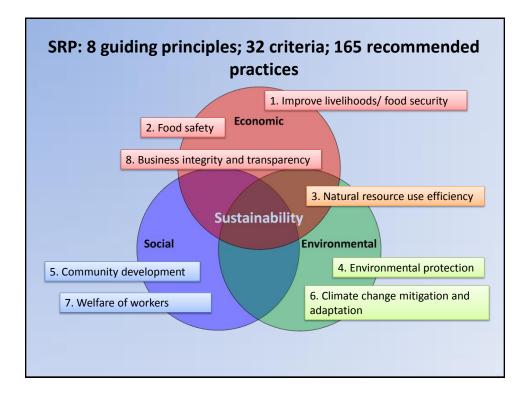
– Rice is responsible for 5% to 10% of global CH4 emissions.



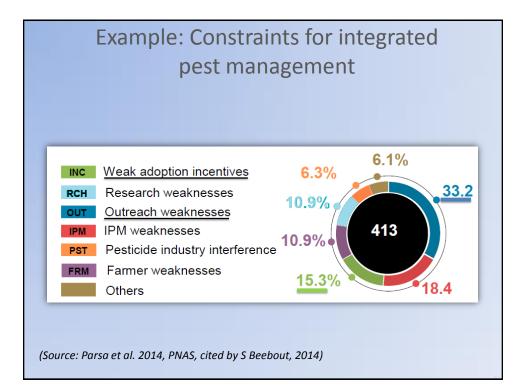




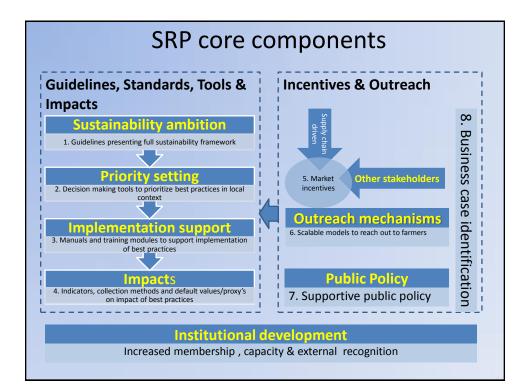




Do we need to provide incentives for farmers to adopt sustainable practices? Not necessary However Education and training are Farmers should benefit from sustainable farming necessary practices without external Changing practices can benefits (increased yield, result in starting costs/risks reduced inputs, improved Other incentives for health) unsustainable practices



Two market-based incentive mechanisms	
Segregation	Book and Claim
 For markets that demand segregated / labelled sustainable rice (e.g. OECD countries) 	 For bulk/mainstream market with low demand for sustainable rice
 Driven from within the rice value chain 	 Potential for drivers from outside rice value chain?



Current status / next steps Secretariat established at UNEP's ROAP, Bangkok 19 members: commodity traders, input suppliers, research institutes, governments, non-profits Rice sustainability guidelines and criteria available Field implementation strategy to develop and test SRP instruments developed Market incentives study Impact indicators under development Stakeholder outreach – CCAC / GRiSP www.sustainablerice.org

