Transforming rice value chains: The Sustainable Rice Platform

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Applying an Integrated Approach:
THE SUSTAINABLE RICE PLATFORM

SDG 1 POVERTY

SDG 2 HUNGER/FOOD SECURITY

SDG 5 GENDER

SDG 12 SCP

SDG 13 CLIMATE

DG 15 BIODIVERSITY

Activities	Multi-disciplinary partners	Cross-cutting issues GENDER, HUMAN RIGHTS AND PRIVATE SECTOR
Promoting adoption of pro-poor innovative technologies among rice smallholders to enhance livelihoods	• 61 institutional members • 10 public sector/research • Inter-governmental • 30 private sector supply chain actors • CSO/CBOs	• Technologies and Standard development (SDG17) • Multi-stakeholder partnerships (SDG17) • Sustainable business practices and reporting" (SDG12) • Hunger (SDG 2.1; 2.2) • Gender equality among rice farmers (SDG 5.1) • Enhance food security and nutrition, focused on smallholders, women farmers (SDG 2.3, 5.1), and agricultural coops/farmers' networks (2.1,2.2)
Introducing climate-smart best practice for rice production for food security	• Ministry of Agriculture and Cooperatives, Thailand (MOA)	
Ensuring gender empowerment through Rice Sustainability Standard	• FairTrade (EU)	
Collaborating with financial sector to introduce Standards-based financial services for smallholders	• Mars Food	
Promoting resource-efficient rice production, sustainable procurement and consumer awareness	• Olam International	
Introduce innovative technologies to mitigate rice sector emissions, while promoting farm-level resilience to CC impacts	• Prime Agri Technologies (Myanmar)	
Protecting biodiversity through a systems/landscape approach and through adoption of integrated approaches to pest and nutrient management	• WWF, Helvetas (Pakistan) • FAO, IFC, UN Environment	

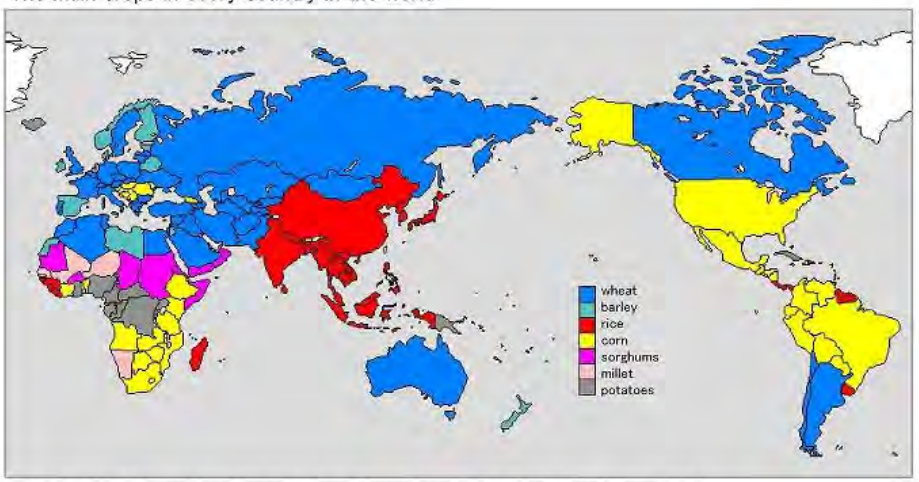
UNEP

The world eats rice: about 480 m MT per year

- 19% of global per capita caloric intake
- 47% of SE Asia per cap caloric intake
- 29% for all Asia
- Staple diet for 50% of the world
- Asia dominates global population: Africa accounts for 30% of rice export growth since 1990 and is expected to be the next source of pop growth
- Due to its size and cultural appeal rice is not substitutable on a large scale

Source: Olam Rice

The main crops in every country in the world



(note)Grain with the maximum harvested area in every country in the world was shown.(2004)
The United States etc. are the one even if corn is 1st place for export. Barley is the main for fodder.
The staple food of the country is not necessarily shown.

(source)FAOSTAT

Total Population

The size of each territory shows the relative proportion of the world's population living there.

www.worldmapper.org

Rice: meeting future demand

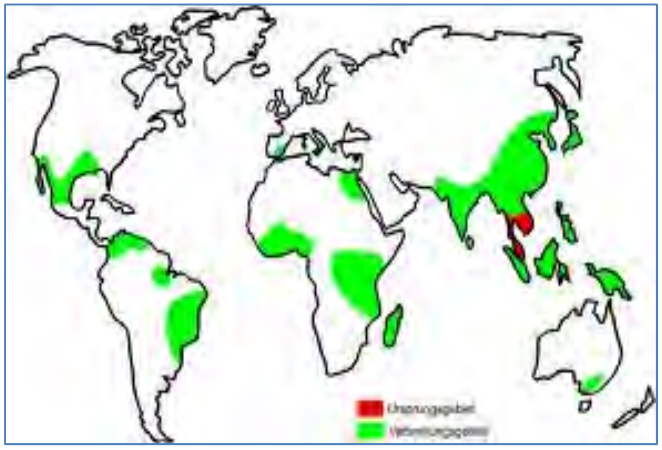
"For **every 1 billion** people added to the global population, **an additional 100 million tons of rice** needs to be produced every year."

Source: IRRI

Production challenges: Rising demand, falling productivity

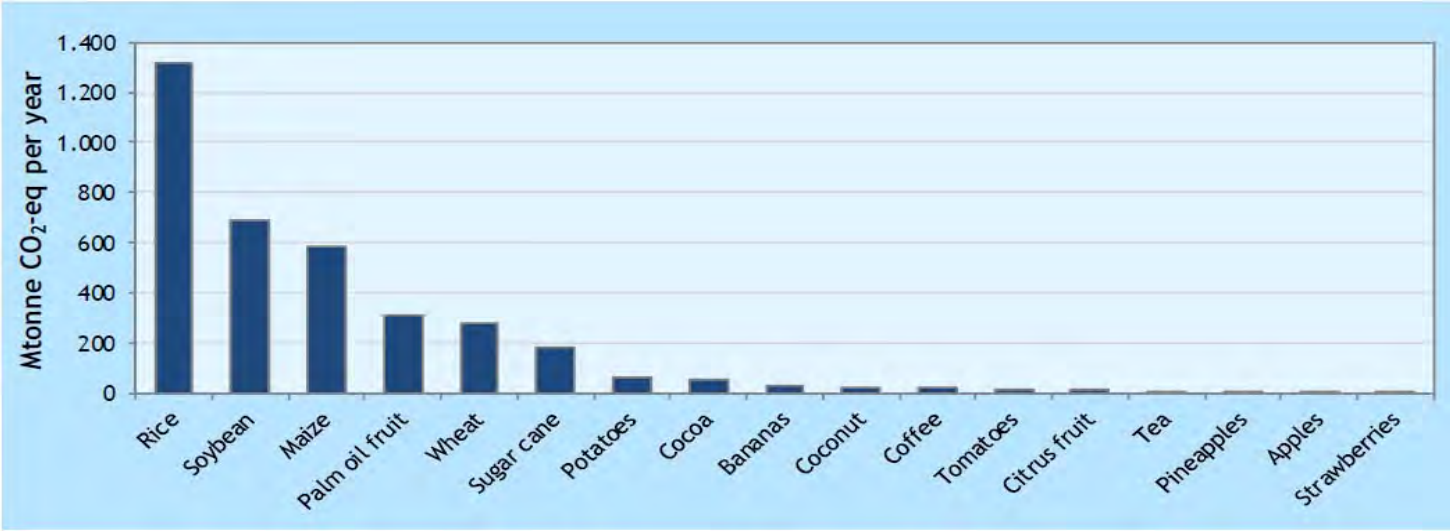
- Slowing growth in production
- Diminishing marginal returns to inputs such as N and P
- Loss of agricultural land (degradation, conversion, urbanization)
- Competition for production factors
- Rising energy and fertilizer prices
- Climate change - 2050 rice yields will decline up to 20% compared with 2000 (IFPRI/ADB, 2009).

Rice sustainability challenges

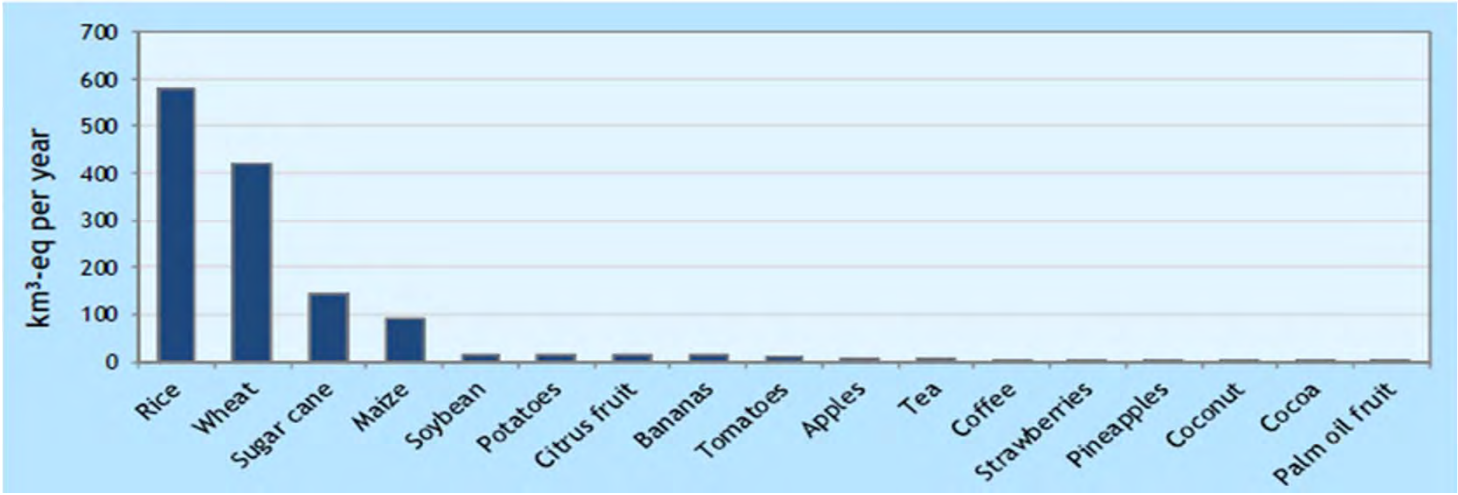


- Resource use efficiency (land, water, agrochemicals, labour);
- GHG emissions (CH_4, N_2O, CO_2);
- Impacts on ecosystem services;
- Soil impacts (e.g. salinization, arsenic, organic matter);
- Disease impacts (e.g. water-borne pathogens);
- Climate change impacts

Annual global GHG footprint per commodity:



Annual global water scarcity footprint per commodity:



Source: Oxfam, 2016

Pesticide use: 0.4-3.8 kg a.i./ha

Ecological breakdown

China, Thailand, Vietnam, Korea, Japan,…

Fertilizer N use: from 25 to >250 kg/ha/season

Too little…

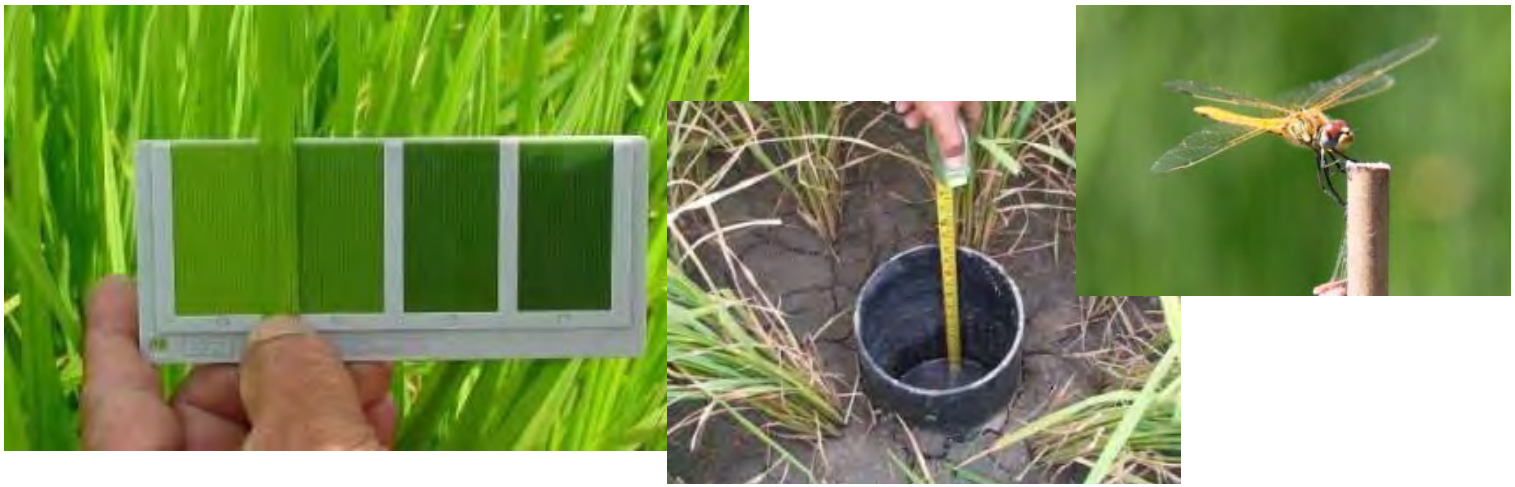
Too much…

Rice fields represent 15% of the world's wetlands

Irrigated rice fields are the richest agro-ecosystems for waterbirds (*van der Weiden et al., 2010*)

Proven climate-smart technologies

- Site-specific nutrient management (SSNM)
- Alternate wetting and drying (AWD)
- Integrated Crop Management (ICM)
- Integrated Pest Management (IPM)
- Resource-Conserving Technologies (RCT)
- ICT- GIS applications



Mobilizing the rice value chain

UNEP

We need.....

A credible, robust and feasible 'standard' or 'sustainability toolkit' available for farmers, that serves to define sustainability in rice and provide a normative framework for policymaking

A mechanism for passing benefits through the value chain and drive widespread adoption

The Sustainable Rice Platform



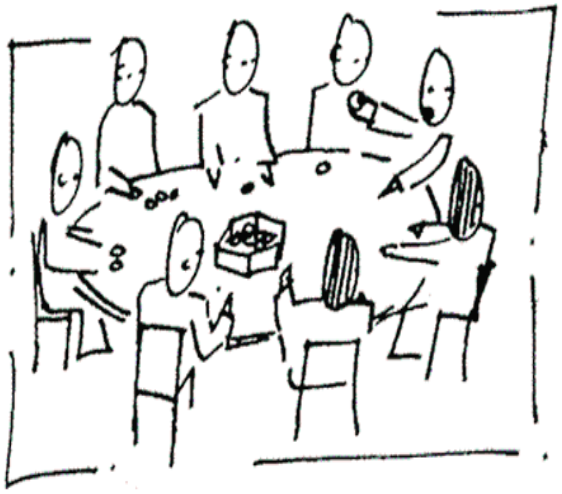
Goal: 1 million farmers adopt climate-smart sustainable best practices within 5 years (2016-2021)

A global multi-stakeholder partnership to drive impact

66 institutional members

International Orgs
UNEP, FAO, IFC

Governments
CAM, INDO, Lao PDR, PHILS, SL, TH, VN



NGOs
Rainforest Alliance, FairTrade, Wildlife Conservation Society, Solidaridad, WWF

Input suppliers
BASF, Bayer, Syngenta, Dow, IFA

Research
IRRI, Punjab Agricultural Univ, Sri Lanka Rice R&D Institute, NACA, NAFRI (Lao PDR), INPI

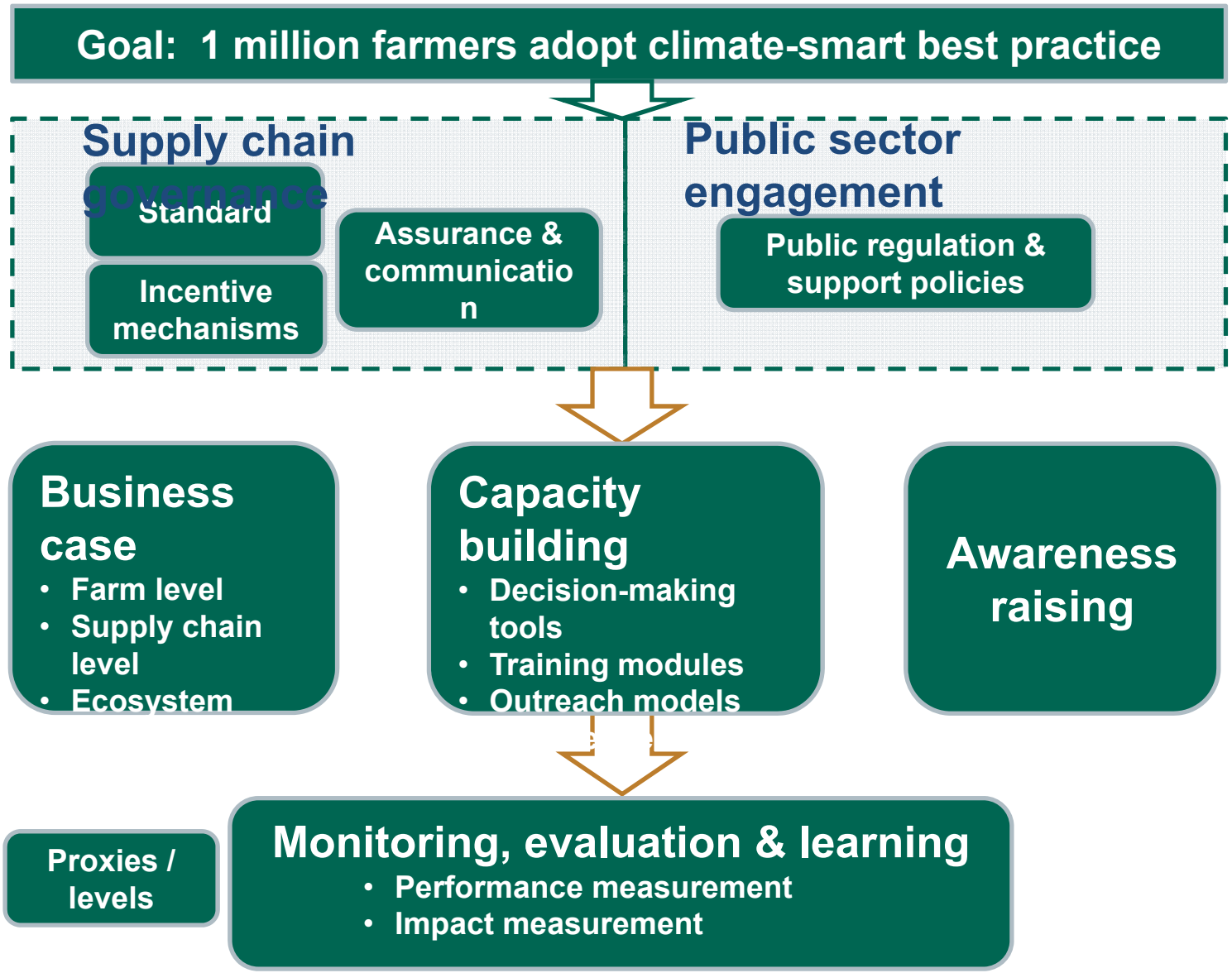
Food industry
Ahold, Mars, Ebro

Producer Groups
Prime (Myanmar)
Nestle Paddy Club Malaysia

Traders / Importers
Ebro, Louis Dreyfus Commodities, Olam International, Tilda, van Sillevoldt Rijst, Westmill, Veetee

SRP institutional members

The building blocks…



Driving best practice: the SRP Standard and Performance Indicators

Distribution: Members' Area of SRP website (brochure format also available)

Translation: Vietnamese, Thai, Khmer, French

Supported by SRP data collection and aggregation tools

Communication and Assurance Guidelines for Pilot Phase

Training materials

SRP: World's first rice sustainability standard

The Standard covers the following 8 themes:


Water use


Nutrient management


Pre-planting


Health & safety


Harvest & post-harvest


Farm management


Labour rights

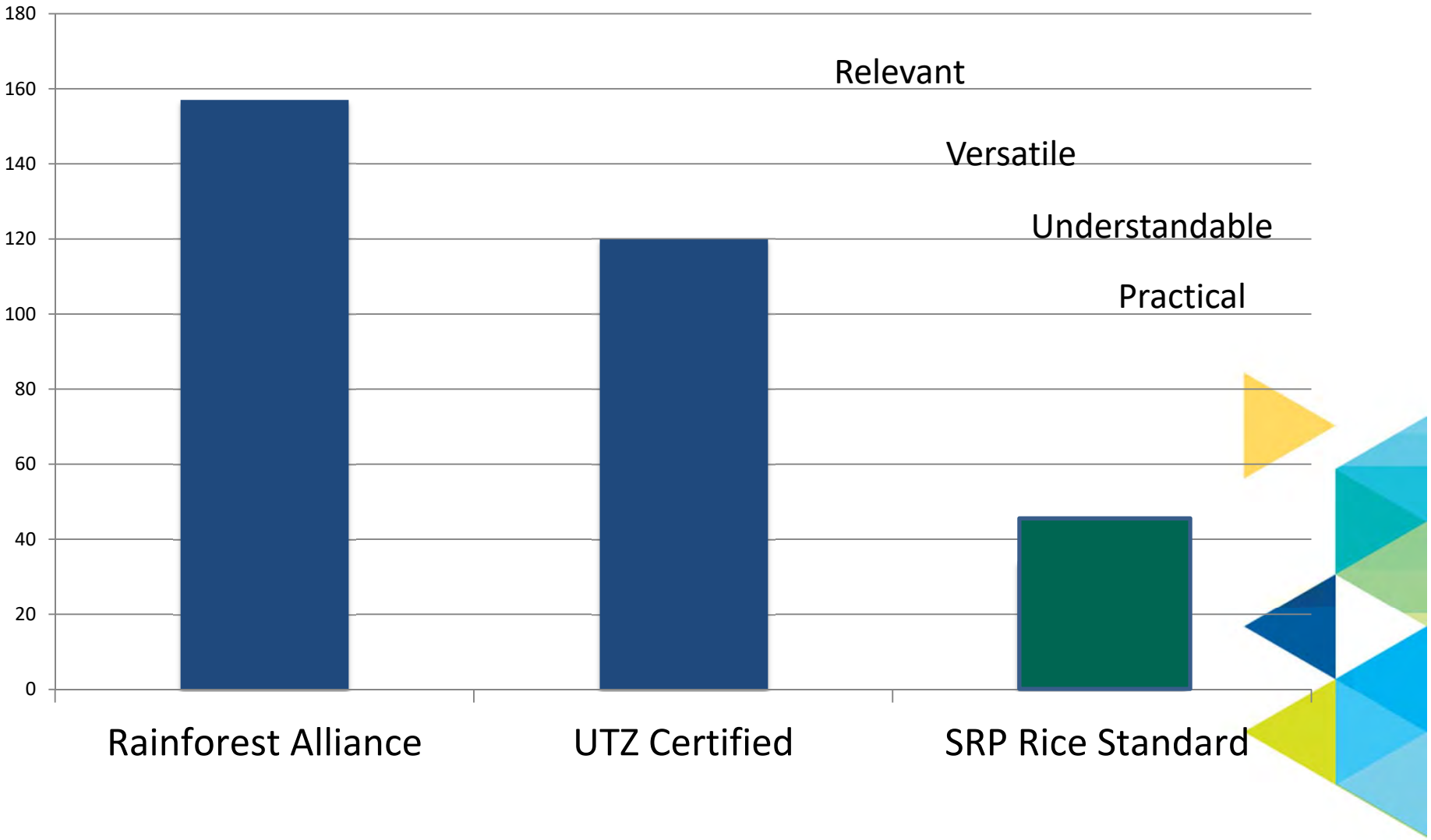

Pest management

Photos: image collection of the International Rice Research Institute (IRRI)

SRP Sustainable Rice Platform

SUSTAINABLE DEVELOPMENT GOALS

A compact standard



SRP Standard and Indicators:

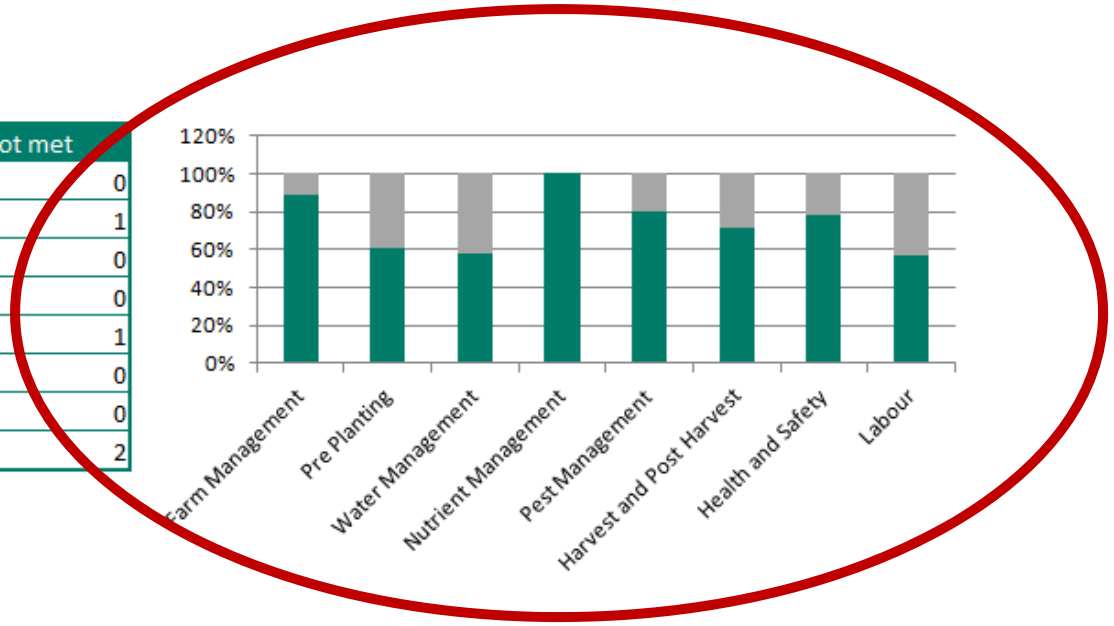
Measure the sustainability of any rice system

Total score on standard		
Score on standard	73	Points
Missed Thresholds	4	Requirements

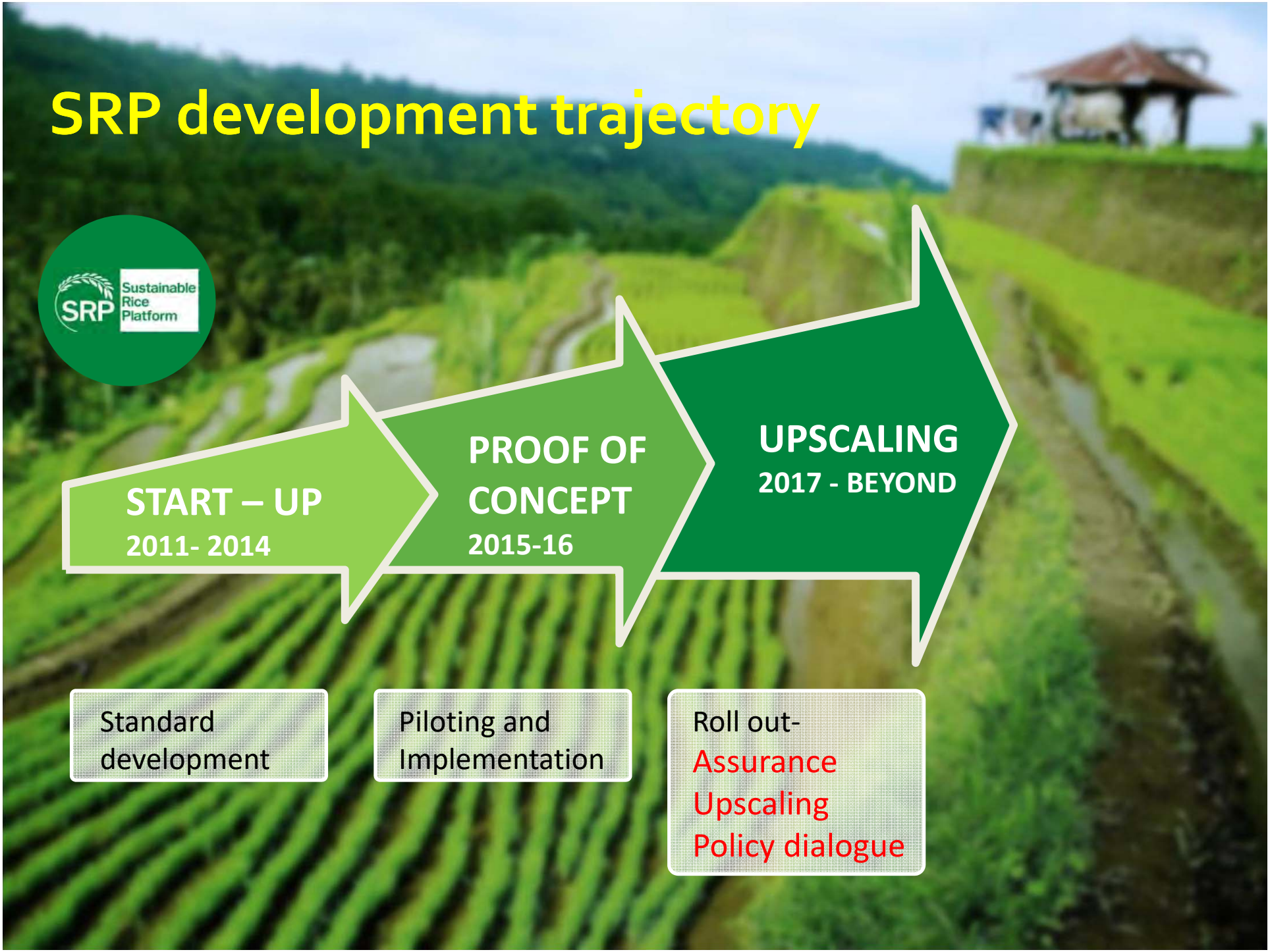
Chapter

= your score

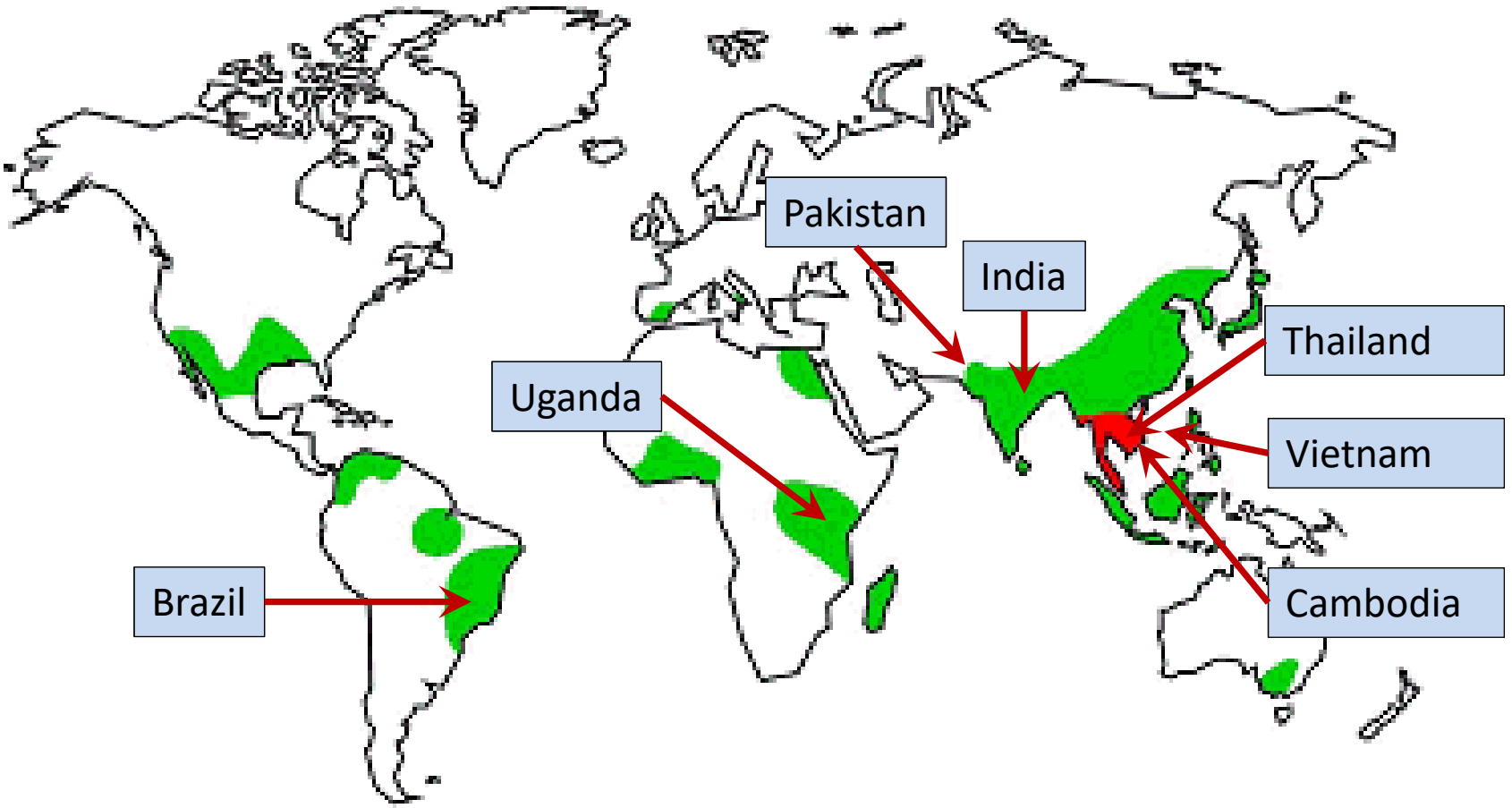
Chapter	Score	Thresholds not met
Farm Management	89%	0
Pre Planting	61%	1
Water Management	58%	0
Nutrient Management	100%	0
Pest Management	80%	1
Harvest and Post Harvest	71%	0
Health and Safety	78%	0
Labour	57%	2



SRP development trajectory



Multi-country field validation programme

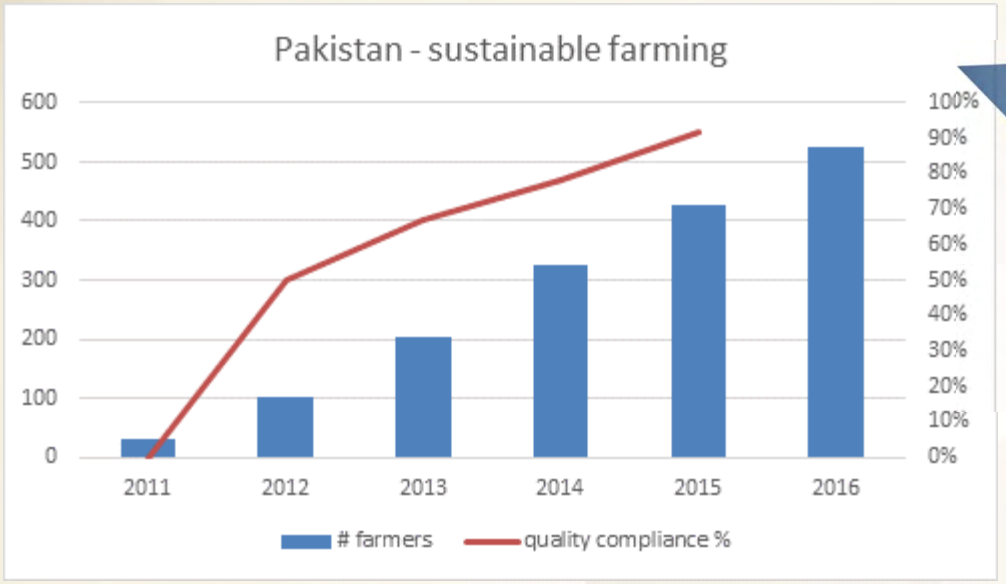


Total Y1: <5,000 ha

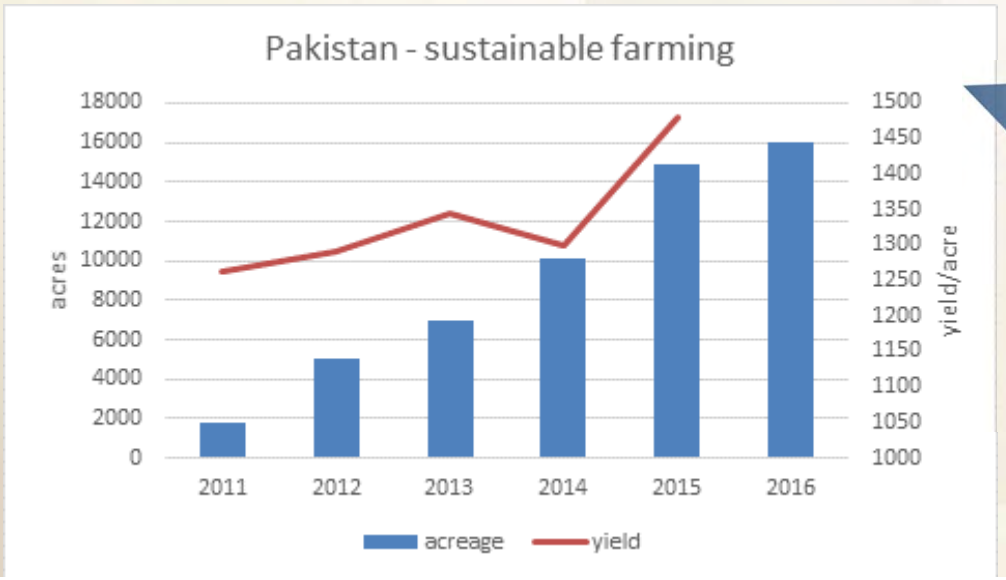
Total Y2: ~20,000 ha

SRP Sustainable Rice Platform

Pilot outcomes to date: Pakistan



From
0% *to* 92%
Quality
Compliance



17%
Yield
Improvement

Better Grain

RICE PARTNERS

BETTER FOOD TODAY.

A BETTER WORLD TOMORROW.

Pilot outcomes to date: Vietnam

Economic efficiency within and outside 2016 Summer-Autumn crop (VND)

Category	SRP	Non-SRP
Total expenses/ha	15,784,347	17,344,850
- Seeding	1,836,524	1,664,707
- Soil working	1,571,165	1,500,565
- Water pumping	1,188,360	1,219,327
- Care	1,714,496	1,895,032
- Harvest	1,769,458	1,733,058
- Fertilizer	4,179,950	4,444,967
- Plant protection chemicals	3,524,394	4,887,195
Total revenue/ha	27,255,358	27,103,600
- Productivity (MT/ha)	5,119	5,089
- Selling price (VND/kg)	5,324	5,326
Profit/ha	11,391,009	9,638,506
Cost per kg	3,083	3,408

N = 150 farmers

Source: Loc Troi Group, An Giang, Vietnam

Key messages:

- Transformation of rice value chains will be key to developing a sustainable food system, for which the Standard serves as a foundation
- Proven technologies are available to enhance resource use efficiency and mitigate climate impacts in rice
- Effective incentive mechanisms and farmer outreach are key to adoption of sustainable best practices

However….

- Only a collaborative, scaled-up response can we reach our goal

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Thank you!