



Cereals System Initiative for South Asia

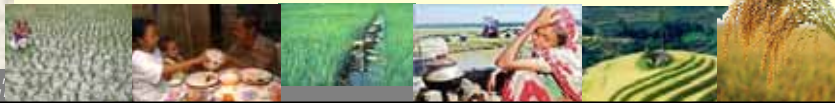
Large Scale Dissemination Models

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**International Symposium – IPI –OUAT - IPNI
OUAT , Bhubneshwar Nov 07, 2009**



This presentation was
Management for Food



Over the Next 15 minutes.....

- **The Context**
- **About CSISA**
- **The Approach –Scale and Scope**
- **Hub and Spoke model of outreach**
- **Role of Partnerships**



This presentation was made at the IPI-OUAT-IPNI International Symposium, 5-7 November 2009, OUAT, Bhubaneswar, Orissa, India. The Role and Benefits of Potassium in Improving Nutrient Management for Food Production, Quality and Reduced Environmental Damage.

The Big Challenges



- Food security
- Rural and urban poverty & malnutrition
- Natural resources: land and water
- Farm sizes and labor
- Energy
- Climate extremes and climate change
- Financial crisis

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" Cereals System Initiative for South Asia"

- **Donors :**
 - **Bill and Melinda Gates Foundation**
 - **USAID**
 - **World Bank**
- **Scientific R&D**
 - **IRRI , Philippines**
 - **CIMMYT , Mexico**
 - **IPFRI , USA**
 - **ILRI , Kenya .**

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“Cereals System Initiative for South Asia” Key Objectives

- Reverse the decline in annual cereal yield growth
- Reduce hunger and malnutrition
- Increase Food and Income Security



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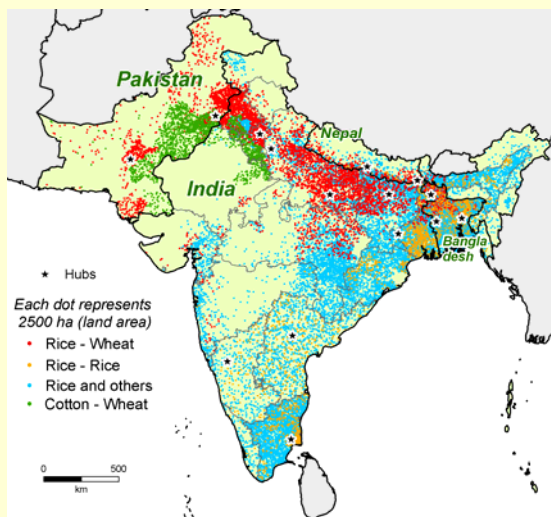
Geographic Spread of CSISA Pakistan, India, Nepal and Bangladesh

Phase 1: 2009-2011

**BMGF:
USAID:
WB, RWC:**

**CGIAR:IRRI, CIMMYT,
IFPRI, ILRI**

**NARES
Private sector
NGOs
ARI
Universities
Societies (ASA)**



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Focus Areas

Intensive cereal-based systems in South Asia that provide the bulk of cereals for human consumption and other uses

- Irrigated or partially irrigated systems, particularly R-R, R-W, R-R-R, R-R-legumes, and others
- Emerging multiple/relay cropping systems involving R, W or M, particularly R-M, M-W,
- Favorable rainfed R areas with potential for intensification/diversification



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Scope

- Integrated solutions for ecological intensification and diversification at high levels of productivity: new production systems
- Strategic germplasm improvement for selected traits
- Public-private sector partnerships for development and delivery
- Policy analyses
- Business Models



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The Key Themes of CSISA

Key Themes:

- 1. Delivery of new technologies through public-private partnerships**
- 2. Future cereal-based systems**
- 3. Rice breeding for current and future systems**
- 4. Wheat breeding for current and future systems**
- 5. Maize breeding for current and future systems**
- 6. Technology targeting and improved policies**
- 7. Capacity building: scientists and professional agronomists**
- 8. Project management, communication and impact assessment**



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Theme 1: Delivery of production and Post Harvest technologies

- 1. Local synthesis of cereal farming knowledge for greater impact**
- 2. Design and implement pilot schemes for improved delivery of seeds and modern technologies in 9 hubs in South Asia**
- 3. Design business models and outscaling strategies for large scale roll-out of technologies through public and private sector channels**



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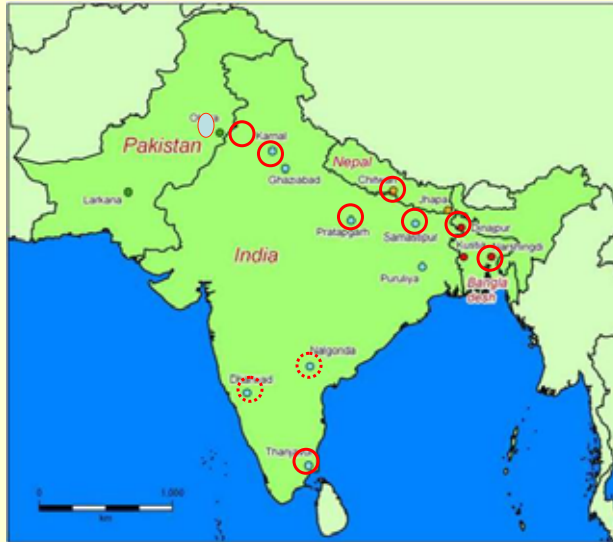
CSISA – Hubs across South Asia

Year 1-3:

8-12 hubs
 +\$300/yr for 60,000
 farm households in
 1500 villages–
 India - 5
 Nepal- 1
 B'desh - 2
 Pakistan -1

Year 4-10:

**Upscaling through
 project-related
 investments to +400
 hubs**
 +\$350/yr for 6 million
 farm households in
 90,000 villages



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Customized Management Solutions

- **Seeds**
- **Laser land leveling to save water and facilitate direct sowing**
- **Zero till crops after rice**
- **Raised bed systems**
- **Direct-seeded rice (wet or dry)**
- **Alternate wetting and drying in rice cultivation**
- **Site-specific nutrient management (R, W, M)**
- **Integrated weed and pest management in cropping systems**
- **Postharvest solutions (drying, storage,)**
- **Information systems (hub communication platform)**
- **Business Models and Market Linkages**

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The Rationale of the TWGs Grassroot Partnerships

In a “Hub and Spoke Model”

- A group of like minded experts who believe and deliver new CSISA and other “bundled” technologies to the farming community.
- ✓ Have the “reach” and wherewithal to outscale
- ✓ Have to “ability” to convince farmer groups
- ✓ Have the “systems” to train ,motivate, and assess impact.
- ✓ Have the “credibility” to influence policy over time



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Composition of TWG

➤ Typically Cross section of Experts from

- Govt Agri Institutions / SAUs
- District Agri Officer
- NGO representatives (MMSRF , Forward , RDRS ,Barwale etc)
- Farmer Associations/ Cooperaratives
- Private Sector –Bayer , ACI , ITC-echoupal, Syngenta, Haryali etc
- Input Suppliers (seeds, equipment, agri biz)
- Media
- Local extension experts / agencies
- CSISA Hub Manager

More of an “Action group” with complimentary objectives to synergize mutual efforts



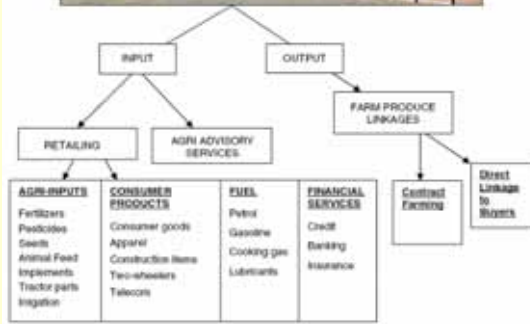
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TWG -- Key Activities

- Synthesize Local Knowledge for design of Regional CKBs. Creation of “quality” Knowledge Banks
- Build Local Capacity to access CKB / HCP
- Define “consensus” technology for local applications
- Support development of quality extension material
- Support and draw from local experimentation in farmer fields and adaptive trials
- Identify training needs & support in building local capacity
- Disseminate technical recommendations
- Become “Ambassadors “ for change
- Meet monthly / bi-monthly to review and plan scale



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Catchment:
 20-25 km radius
 15-20,000 farms
 30-40,000 ha
 Gross ag income
 ~\$40 million

3-4 acre campus
 4 Agronomists

Regional service centers



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Theme 2: Management practices for future cereal-based systems

- Participatory adaptation of new crop and resource management technologies for CA systems
- Experimental platforms: new generation of resource-efficient, high-yielding cereal systems
- Operating in Objective 1 hubs and selected other areas
- Interactions with breeding programs



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Theme 6 :Technology targeting and improved policies

- Public-private partnerships for maximizing development and adoption of improved seeds
- Understand micro-level constraints to rapid productivity growth and adoption of resource conserving technologies
- Assess policies and institutional issues at national level
- Interactions with Objectives 1-5



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Theme 7: New generation of scientists and professional agronomists

- New generation of agricultural scientists for South Asia:
 - Training courses for young scientists
 - Global Cereal Science Scholarships (6 PhD)
 - Field internships for college graduates
- Certified Crop Advisor (CCA) program for professional agronomists (with ASA)



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Associated R&D projects

- National programs
- RWC (Rice Wheat Consortuim)
- Rice-maize systems Bangladesh (ACIAR)
- Global rust initiative (BMGF)
- Stress tolerant rice for Africa and S. Asia (STRASA - BMGF)
- Village level dynamics in S. Asia (BMGF)
- IRRC (SDC)
- Challenge Programs: CPWF, CCCP
- Climate change (USAID)
- Others



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