

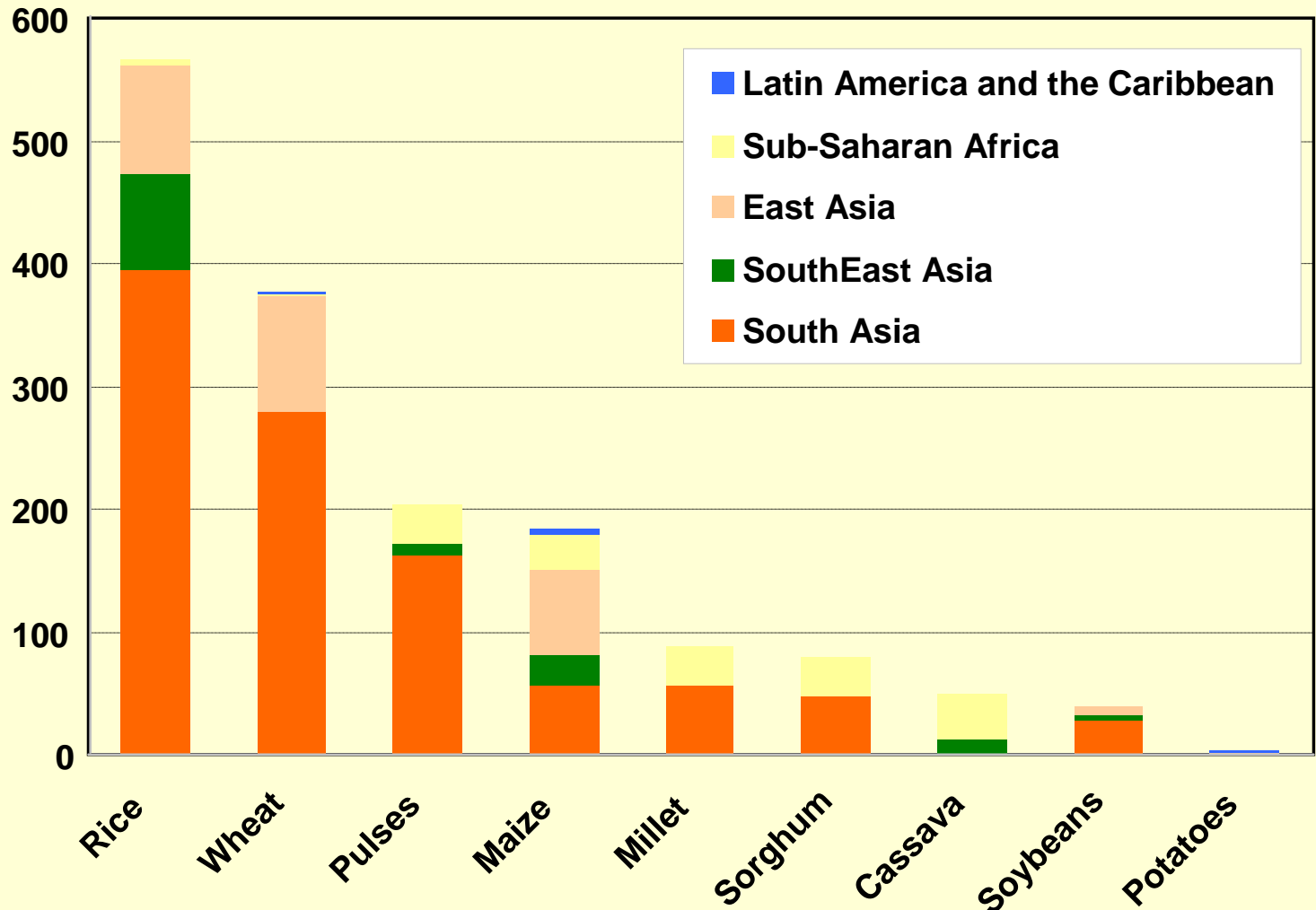
**CGIAR Thematic Area 3:
Sustainable crop productivity increase for global food security**

A Global Rice Science Partnership (GRiSP)

**IRRI, AfricaRice & CIAT with CIRAD, IRD,
JIRCAS as key participating institutions and
over 450 other partners**



Million people on <\$1.25 per day

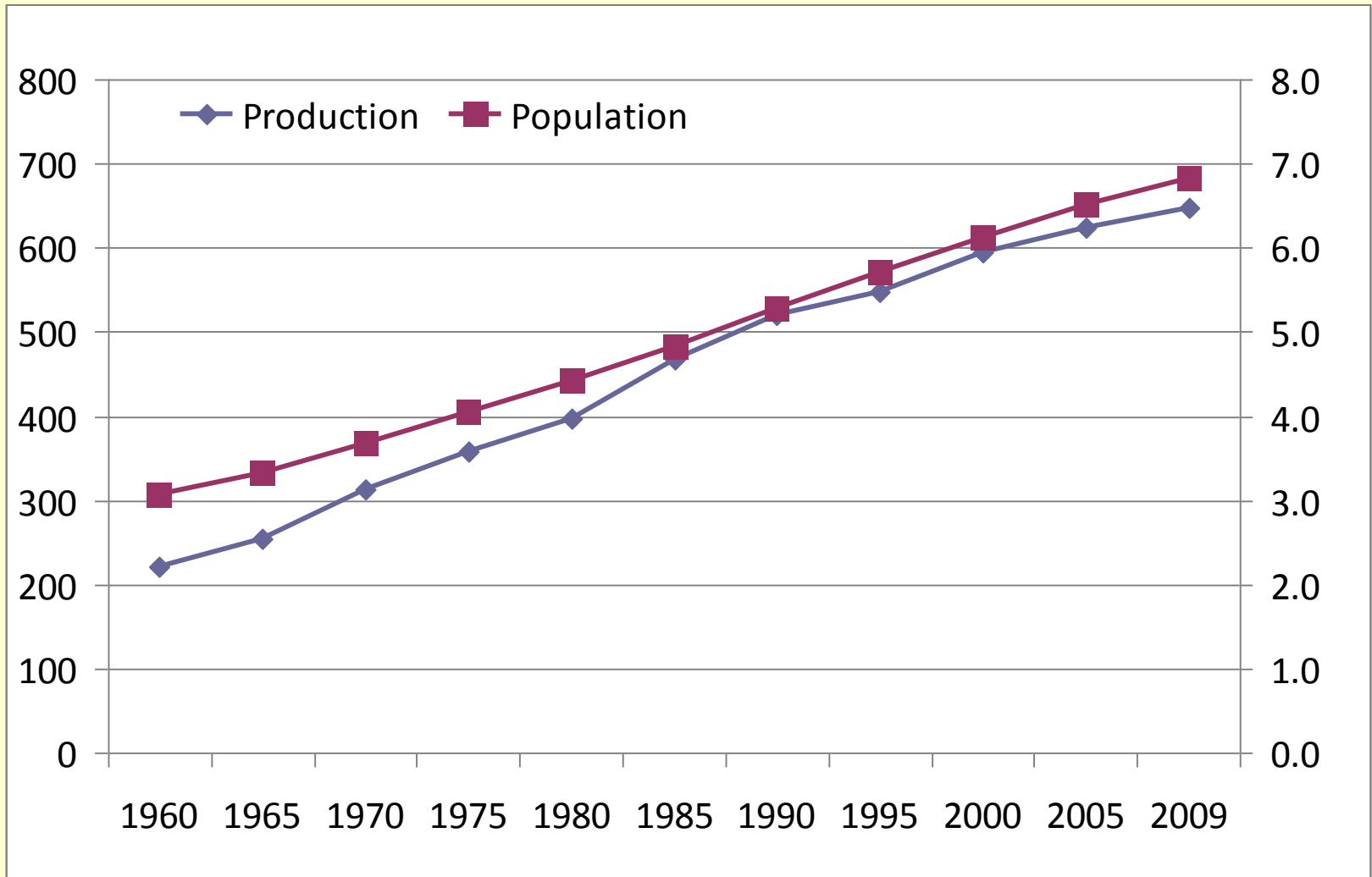


Number of people below the \$1.25 per day (PPP) poverty line who live in areas dominated by different crops (2005 data). Numbers are based on areas more than 10% covered by the dominant crop. Some areas have more than one dominant crop and thus overlap.

Global rice production vs population

Million Tons (Paddy)

Billion People

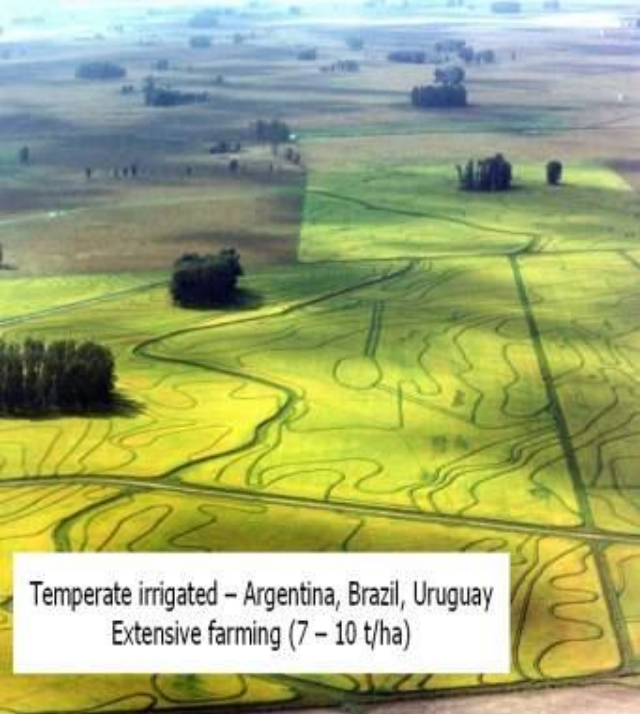


Why a global partnership on rice science for development?

- **Rice is food to about 50% of the world's people – many of which are poor Unique, globally important production systems**
- **Good track record of R&D investments that focus on integrated solutions for rice-based systems**
- **Strong regional differences in development needs, but many new opportunities for science breakthroughs & S-S learning**
- **Greater synergies and enhanced impact through a global program**

What's new?

- **A single global rice R&D strategy that aligns CGIAR and non-CGIAR programs**
- **Accelerated R&D impact through**
 - **evidence-based priority setting**
 - **integration along the whole value chain**
 - **focus on demand-driven products for sustainable improvement of rice-based production systems**
 - **enhanced south-south learning**
 - **enhanced partnerships – upstream to downstream**
 - **ability for leading NARS to contribute regionally and globally**
 - **enhanced capacity building efforts and gender strategies across all themes**
 - **efficient targeting of modern science to development**



Temperate irrigated – Argentina, Brazil, Uruguay
Extensive farming (7 – 10 t/ha)



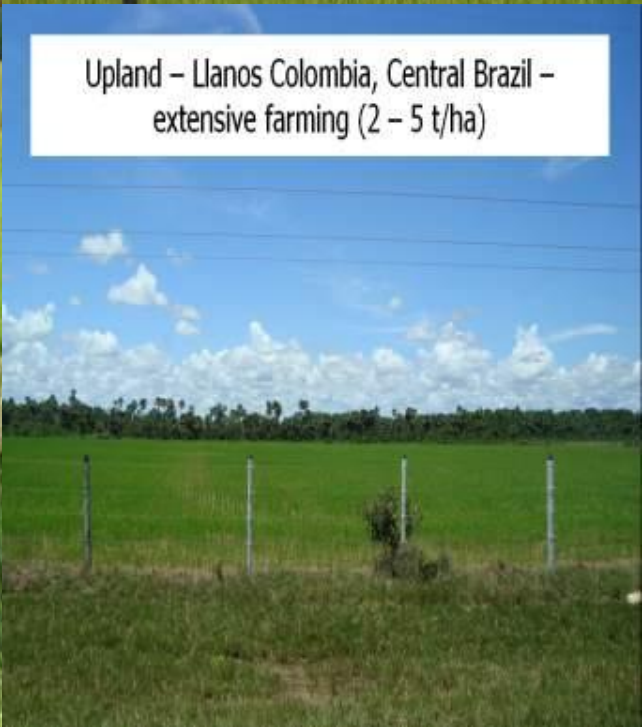
Tropics Irrigated – Colombia, Venezuela, Guyana,
Dominican R., Nicaragua – small-medium farms (4–8 t/ha)




High Potential Environments Irrigated
Perú, Ecuador – small farms (8–12 t/ha)



Favored rainfed – Central America, Colombia, Ecuador,
Bolivia - Small – medium farms (3 – 7 t/ha)



Upland – Llanos Colombia, Central Brazil –
extensive farming (2 – 5 t/ha)

An aerial photograph of a lush green rice paddy field. The field is divided into numerous rectangular plots, some of which are flooded with water, reflecting the sky. In the foreground, there is a small pond and a traditional hut with a thatched roof. The background shows a dense forest of trees.

Affordable rice
Nutrition
Income

Erosion control

Flood control

Water purification (N, P)

Biodiversity – natural control of pests

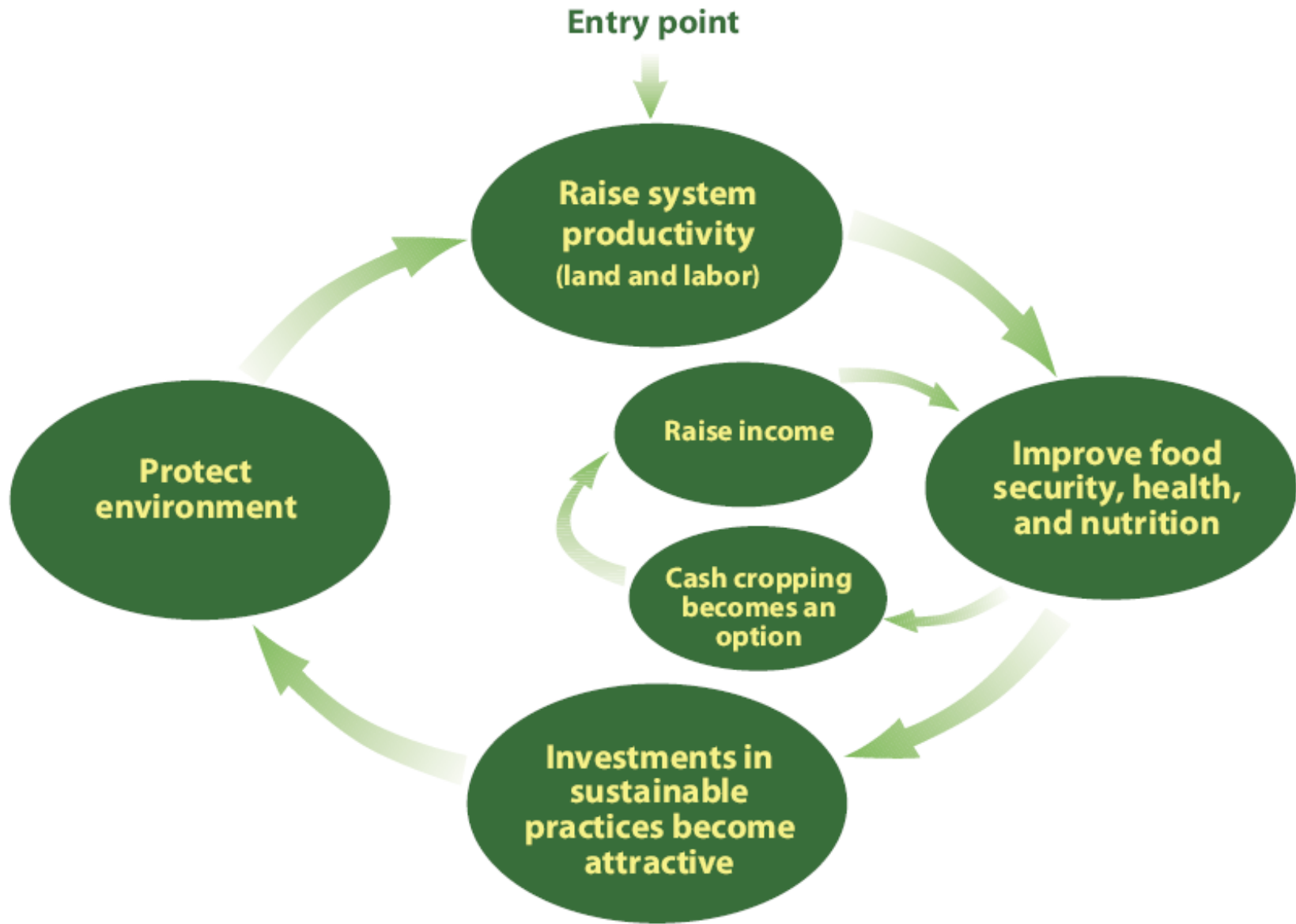
Disease regulation

Climate regulation

Greenhouse gases

Recreation

Culture



The virtuous circle

GRiSP Approach

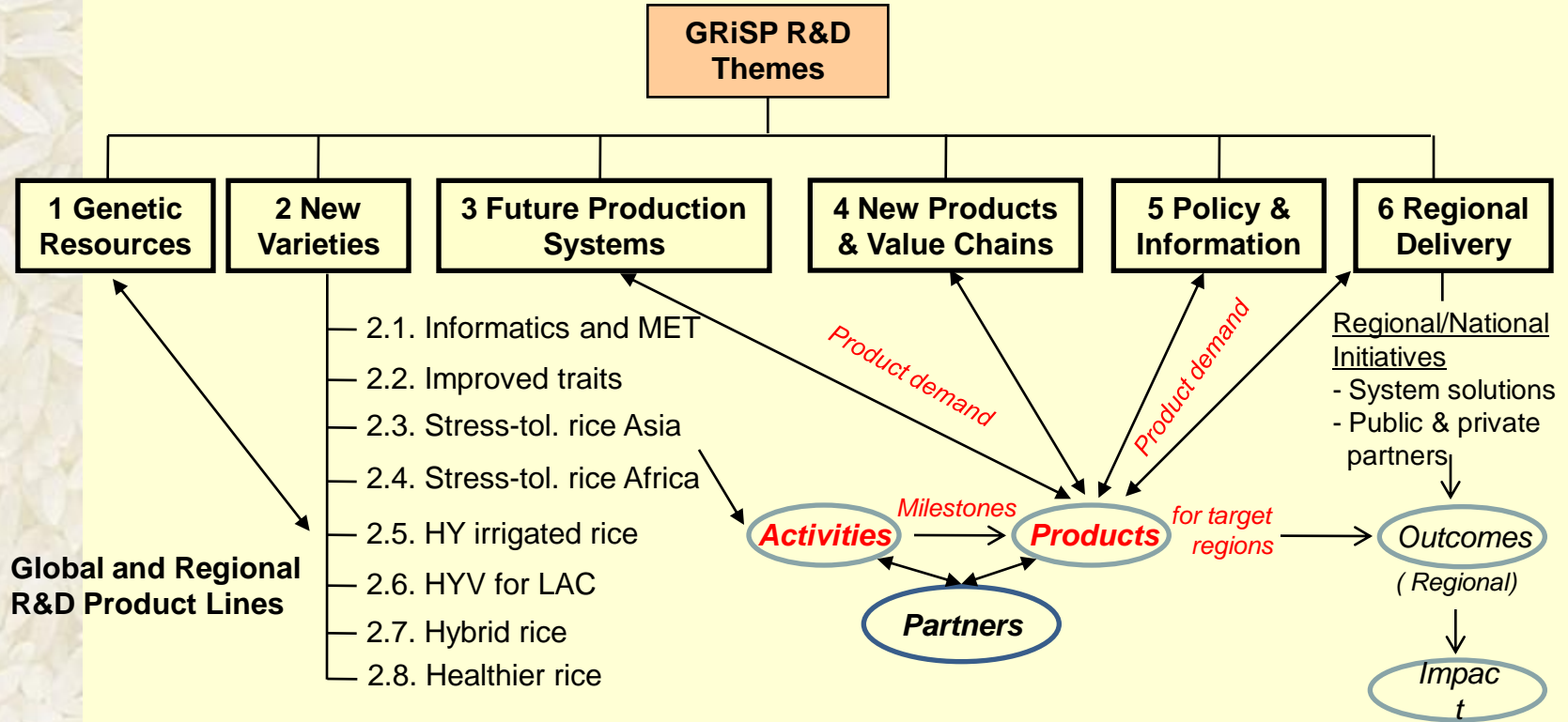
- **Vision of success: quantitative impact targets (linked to the system-level outcomes in the SRF)**
- **Three objectives to achieve the Vision of Success (aligned with the SO of the SRF)**
- **Six research for development themes that address the strategic objectives**
 - **32 global or regional R&D Product lines (families of products/deliverables; each >\$3 million/yr)**
 - Activities with SMART Milestones that provide clear targets for Products and their uptake (outcomes)
- **CGIAR Fund windows 1-3, bilateral grants, co-investments by partners and other sources providing the resources for the different product lines**
- **Work plan: 2011 – 2015 (milestones over 5 years)**
- **Budget: 2010 – 2013 (current + 3 years)**

Objectives

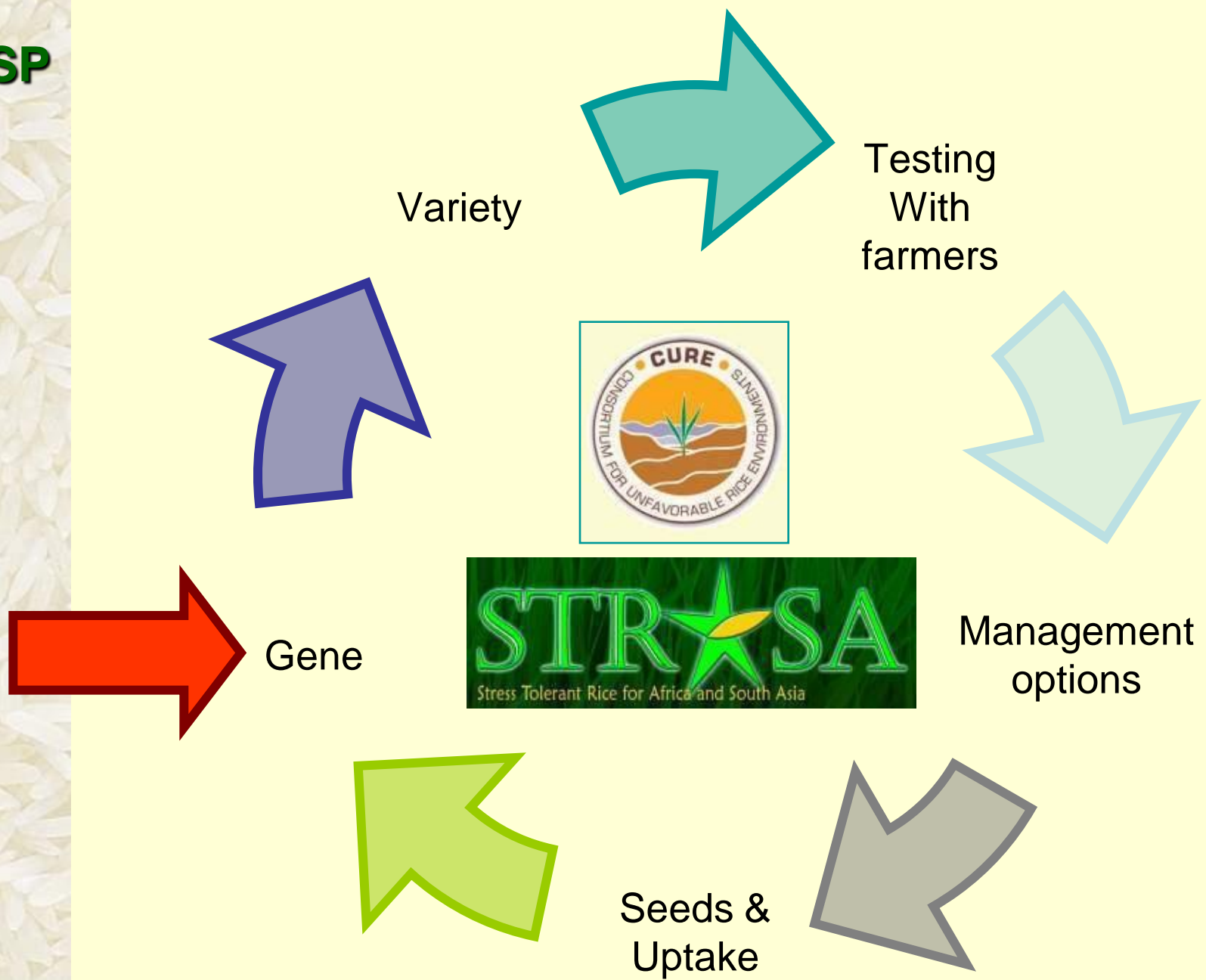
- **Objective 1:** Increase rice productivity and value for the poor in the context of a changing climate through accelerated demand-driven development of improved varieties and other technologies along the value chain (addressed through themes 1, 2, 3, 4, and 6).
- **Objective 2:** To foster more sustainable rice-based production systems that use natural resources more efficiently, are adapted to climate change and ecologically resilient, and have reduced environmental externalities (addressed through themes 3, 4, and 6).
- **Objective 3:** To improve the efficiency and equity of the rice sector through better and more accessible information, improved agricultural development and research policies, and strengthened delivery mechanisms (addressed through themes 5 and 6).

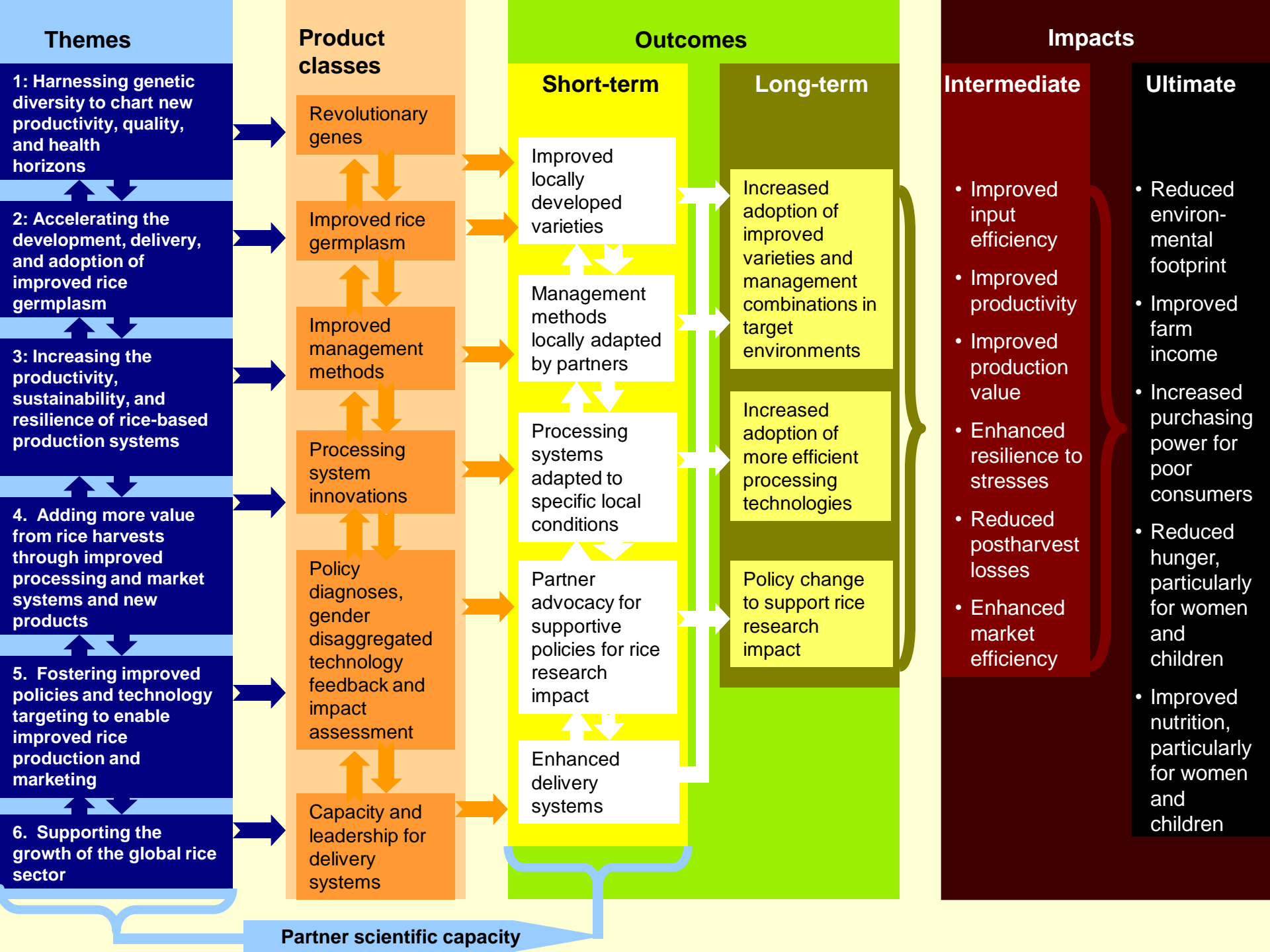
GRiSP R&D Themes

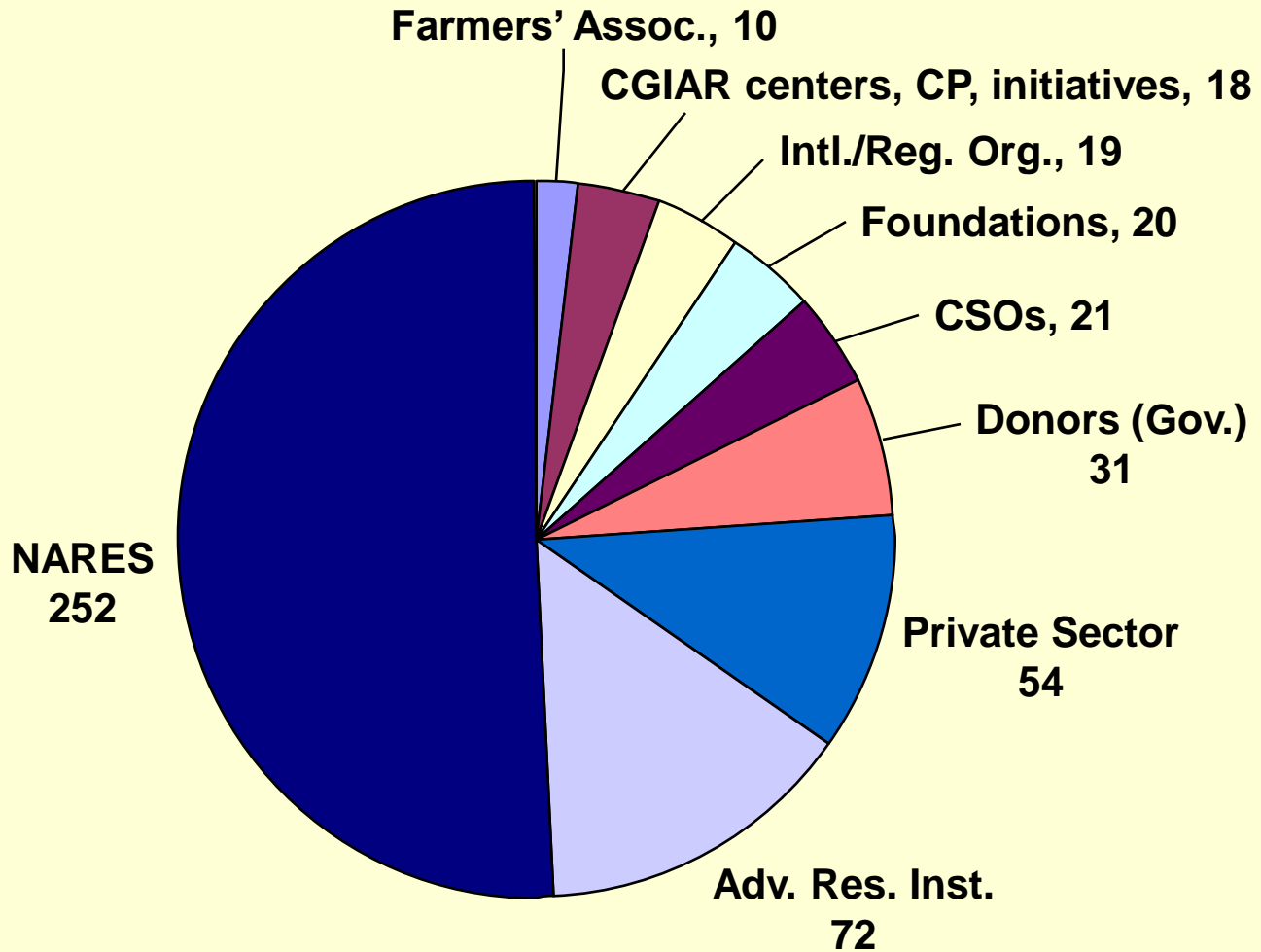
- **Theme 1: Harnessing genetic diversity to chart new productivity, quality, and health horizons**
- **Theme 2: Accelerating the development, delivery , and adoption of improved rice germplasm**
- **Theme 3: Increasing the productivity, sustainability, and resilience of rice-based production systems**
- **Theme 4: Extracting more value from rice harvests through improved processing and market systems and new products**
- **Theme 5: Fostering improved policies and technology targeting to enable improved rice production and marketing**
- **Theme 6: Supporting the growth of the global rice sector**



Outcome-driven innovation through integrated product-oriented R&D in GRiSP







Current partnerships of IRRI, AfricaRice, and CIAT (rice). The graph includes only partnerships that involve flow of funds for joint research and development activities.

- **Biodiversity**
 - Genetic resources
- **CIMMYT:**
 - Crop informatics
 - Cereal Systems Initiative for South Asia
 - Rice-maize systems
 - Cereal Knowledge Bank (CKB)
- **ICARDA:**
 - Pulses in rice-based systems
- **ICRISAT:**
 - Village level dynamics in South Asia
 - Tracking varietal adoption in South Asia
 - Pulses in rice-based systems

- **IFPRI:**
 - Cereal Systems Initiative for South Asia (CSISA)
 - Global futures for agricultures
 - Gender
 - HarvestChoice
- **IITA:**
 - Inland Valley Consortium (Africa)
- **ILRI:**
 - Cereal Systems Initiative for South Asia (CSISA)
- **IWMI:**
 - Inland Valley Consortium (Africa)

Interaction with other MPs (CPs)

- **Full participation** of IRRI, AfricaRice, CIAT and other GRiSP partners in other MPs that address rice-related issues beyond the focus of GRiSP and require wider collective action.
- **Project collaboration** in which GRiSP interacts with other MPs through bilateral projects (and vice versa) in the thematic areas that are also addressed by other MPs, but require a systems approach (e.g., IVC, CSISA)
- **Co-investment** from other MPs into GRiSP (or vice versa), through which outputs of one MP are also cross-listed as outputs in another; this model may be preferred for research that is better conducted in another MP, but contributes to the thematic area of the sponsoring MP (“outsourcing”).

Integrated in GRiSP

- **Strategic assessment for priority setting (T5)**
- **M & E**
- **Capacity building and gender (in each theme and through globally coordinated activities)**
- **Exploratory research (“blue sky”)**
- **Conservation of genetic resources (T1)**
- **Climate change: technology development and dissemination for adaptation and mitigation (T1, T2, T3, T4, T6)**
- **CP activities from GCP, Harvest+, CPWF**
- **Collaboration with 7 other CGIAR centers**
- **Global rice R&D programs of CIRAD, IRD and JIRCAS**

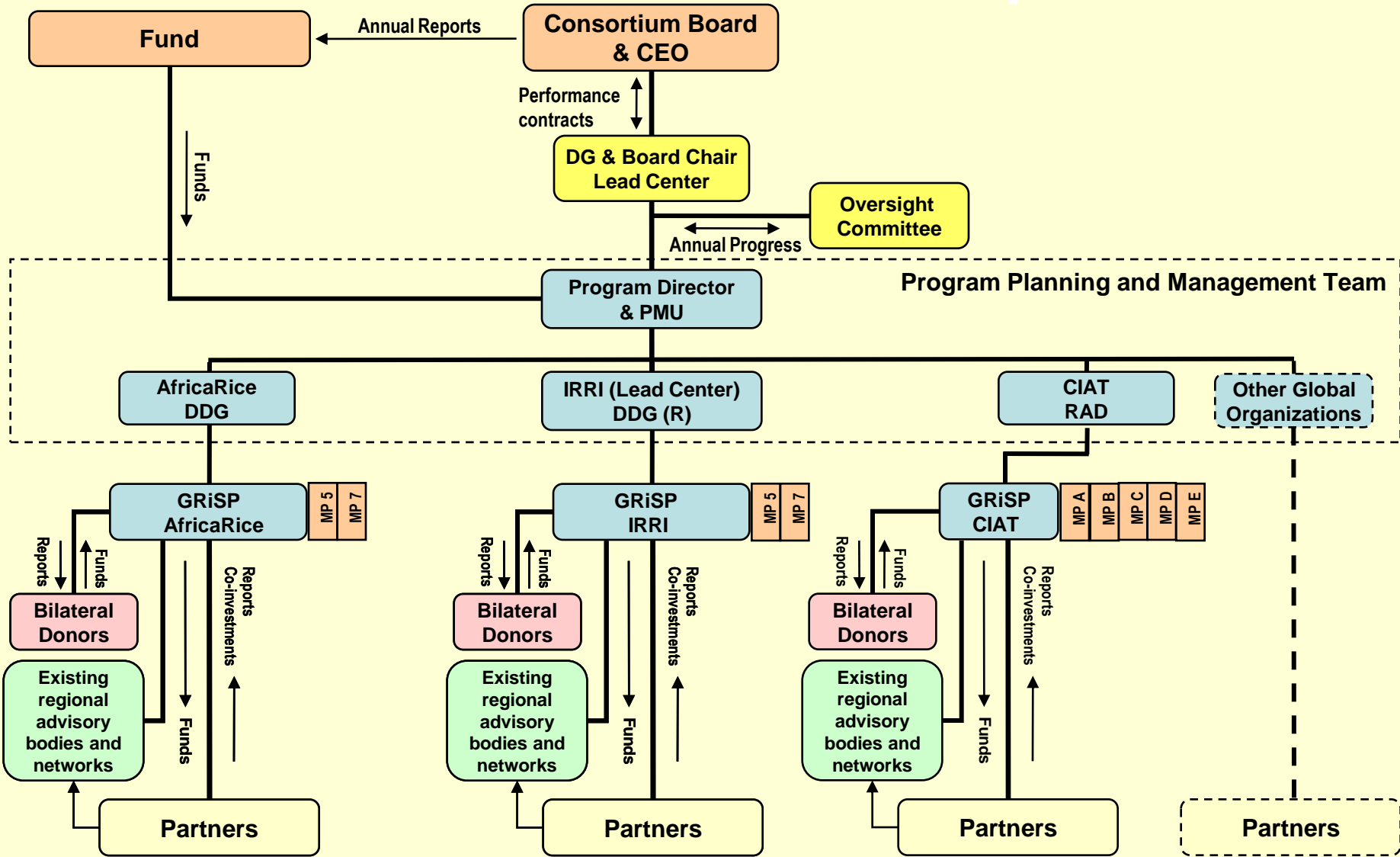
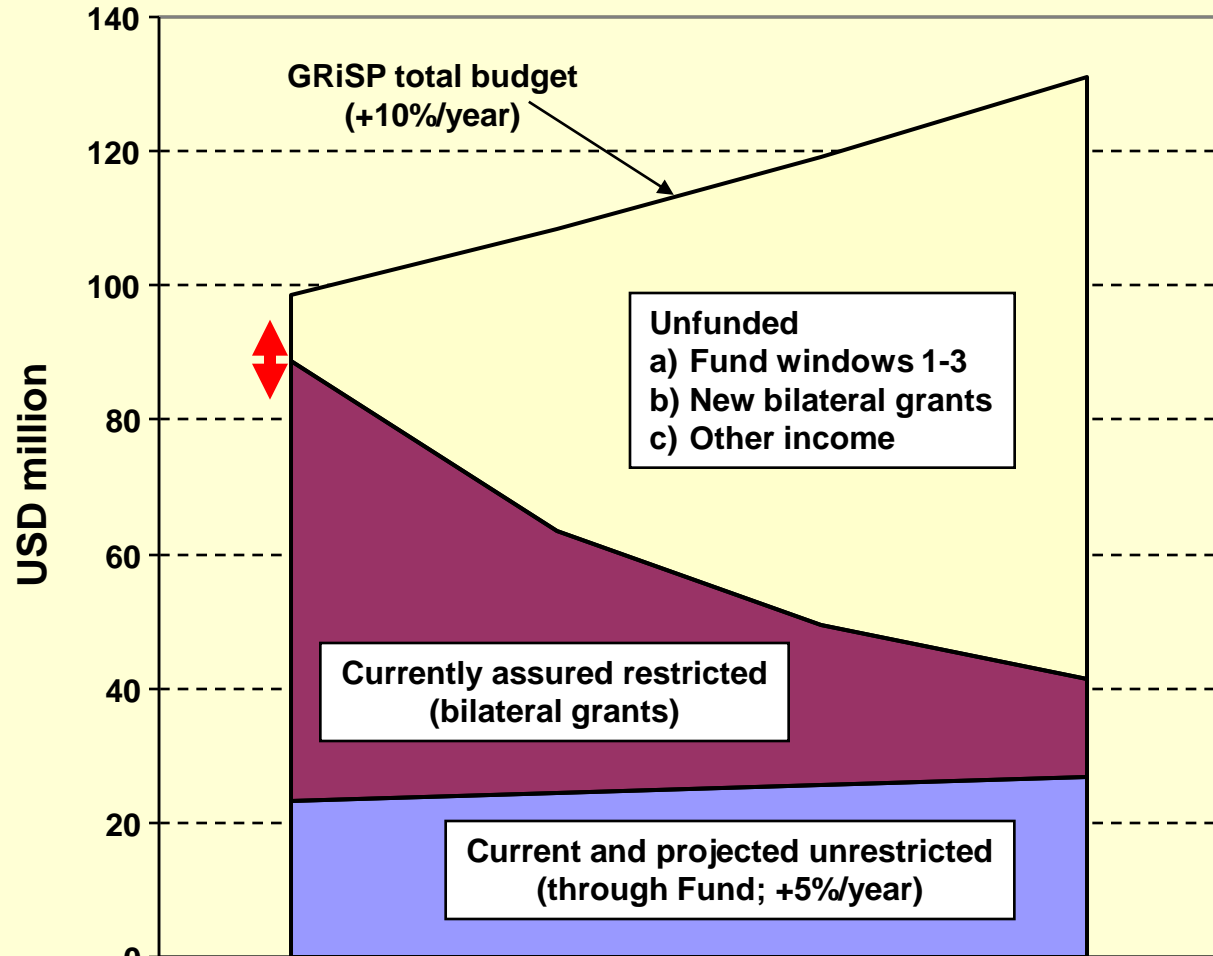


Table 2. Projected GRiSP expenditures by year, 2010-2013 (USD million)

Research Theme	IRRI	AfricaRice	CIAT	Other CGIAR Centers	NARES, NGO, ARI	Global Support & Coord.	Total	Share
GRiSP Total, 2010 - 2013								
T1-Genetic Resources	47.3	8.1	8.2	0.3	11.9	-	75.8	16%
T2-New Varieties	70.5	17.0	11.8	2.2	15.7	-	117.1	26%
T3-Production Systems	50.3	16.5	1.2	7.4	19.7	-	95.2	21%
T4-Value Chains	12.2	6.7	0.3	-	1.5	-	20.7	4%
T5-Policy and Information	21.5	9.7	0.3	3.9	6.1	-	41.5	9%
T6-Delivery	27.1	20.4	0.9	4.6	9.7	-	62.6	14%
Institutional Capacity	16.4	5.5	4.6	-	-	-	26.5	6%
Global Support & Science Capacity	-	-	-	-	-	9.5	9.5	2%
Program Coordination	-	-	-	-	-	8.6	8.6	2%
Total 2010-2013	245.3	83.8	27.3	18.4	64.5	18.1	457.5	100%
Percentage	54%	18%	6%	4%	14%	4%	100%	

+ significant co-investments by partners

e.g.: CIRAD, IRD, JIRCAS ~ 100 M over the same period



	2010	2011	2012	2013
Funding gap	9.9	44.9	69.9	89.7
Assured restricted	65.3	39.1	23.7	14.6
Projected unrestricted	23.3	24.5	25.7	26.9

Table 5. Global program support and coordination, 2010-2013 (USD million)

Research support & science capacity building

	2010	2011	2012	2013	Total
Global research teams support	0.10	0.40	0.50	0.60	1.60
Special grants (new research/delivery partnerships)	0.00	1.00	1.50	2.00	4.50
Gender capacity building	0.00	0.10	0.15	0.15	0.40
Science capacity building	0.00	0.80	1.00	1.20	3.00
Total	0.10	2.30	3.15	3.95	9.50

Program Coordination

Program Management Unit staff	0.05	0.30	0.35	0.37	1.07
Program operations (travel, PMU office, consultants)	0.05	0.30	0.35	0.40	1.10
Workshops, reviews	0.10	0.50	0.50	0.50	1.60
Advisory Panel	0.00	0.10	0.10	0.10	0.30
Administrative support (grants, finance, reporting)	0.20	0.50	0.60	0.60	1.90
Rice Today magazine	0.05	0.30	0.30	0.30	0.95
Other communication (website, newsletter, reports)	0.05	0.10	0.10	0.10	0.35
M&E/impact assessment/ priority setting	0.00	0.40	0.45	0.50	1.35
Total	0.50	2.50	2.75	2.87	8.62

Total	0.60	4.80	5.90	6.82	18.12
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Table 6. Institutional capacity funds, total for 2010-2013 (USD million)

Institutional Capacity	IRRI	AfricaRice	CIAT	Total
				-
Genebank + other collections	4.25	1.26	1.52	7.03
Long term trials	0.73	0.04	0.37	1.14
Library	2.53	0.21	0.55	3.30
Capital	8.00	1.88	1.94	11.82
Mbe Station, Bouake	-	1.97	-	1.97
Staff development	0.85	0.17	0.23	1.24
Total	16.36	5.52	4.61	26.49

Massive impact

- **GRiSP products will directly improve the lives of 2 billion people involved in growing, processing and consuming rice worldwide.**
 - including nearly 600 million of the world's poorest people
- **GRiSP attributable reductions in food prices will effectively lift 133 million Asian people and 24 million African people above the \$1.25 PPP poverty line**
- **As a result of increased availability and reduced prices, 107 million undernourished Asians will reach caloric sufficiency, reducing hunger by 20%.**
- **3 million hectares less land will be used for rice, saving natural ecosystems**

Next steps

- **Aug-Sep: Further consultations with partners**
Refine products and milestones
Annual work and business plan
- **Oct: GRiSP mgt. structure & processes**
Align internal R&D mgt. structures
- **Nov: Launch GRiSP during IRC 2010**
Initiate first new global activities
- **Dec: Incorporate strategic assessment**