

Towards a Strategy and Results Framework for the CGIAR

Strategy Team:

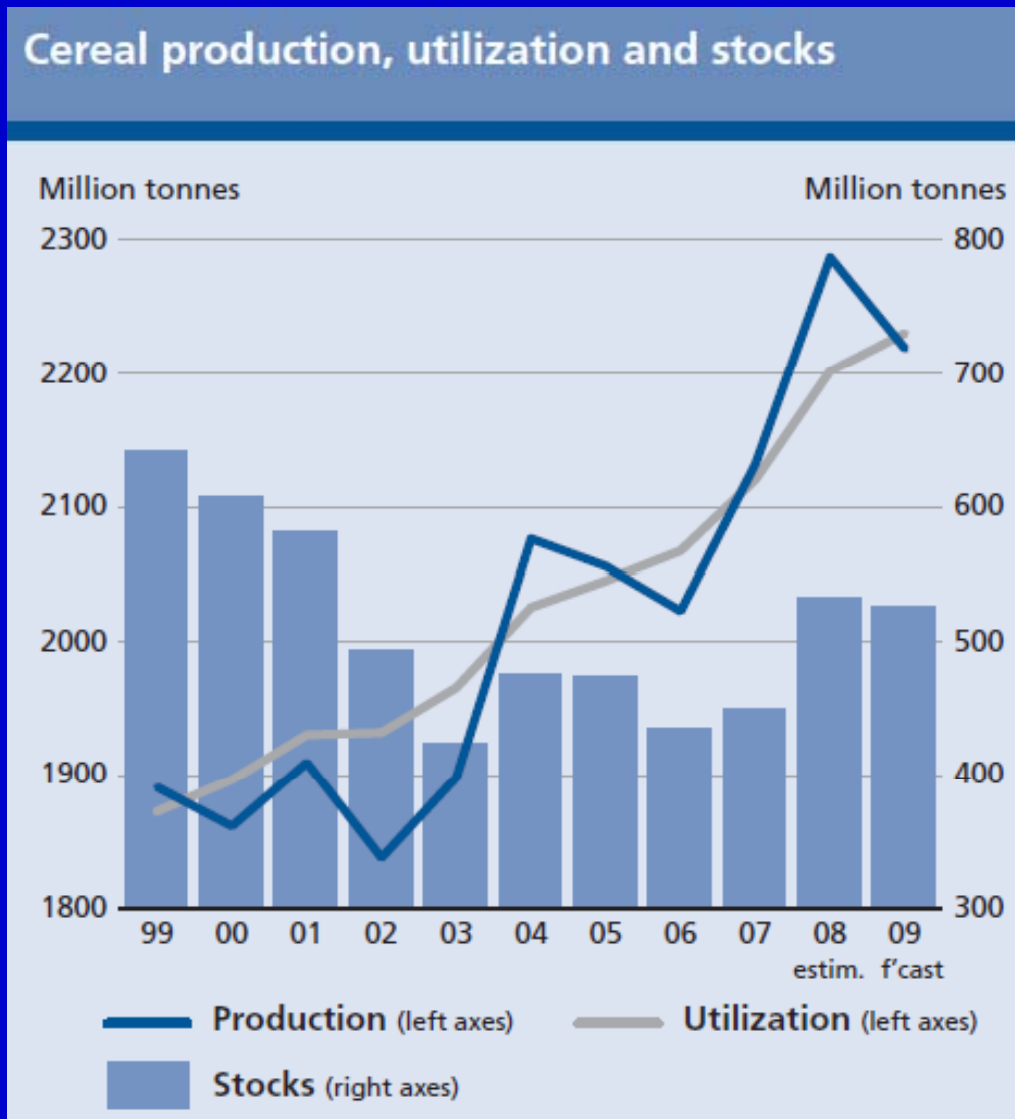
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December 7, 2009

Overview

1. **Towards a Strategy and Results Framework**
2. **The Mega Programs and Platforms**
3. **Operating the Strategy and Results Framework**
4. **Moving Forward**

World Food Situation: Production and Stocks Developments

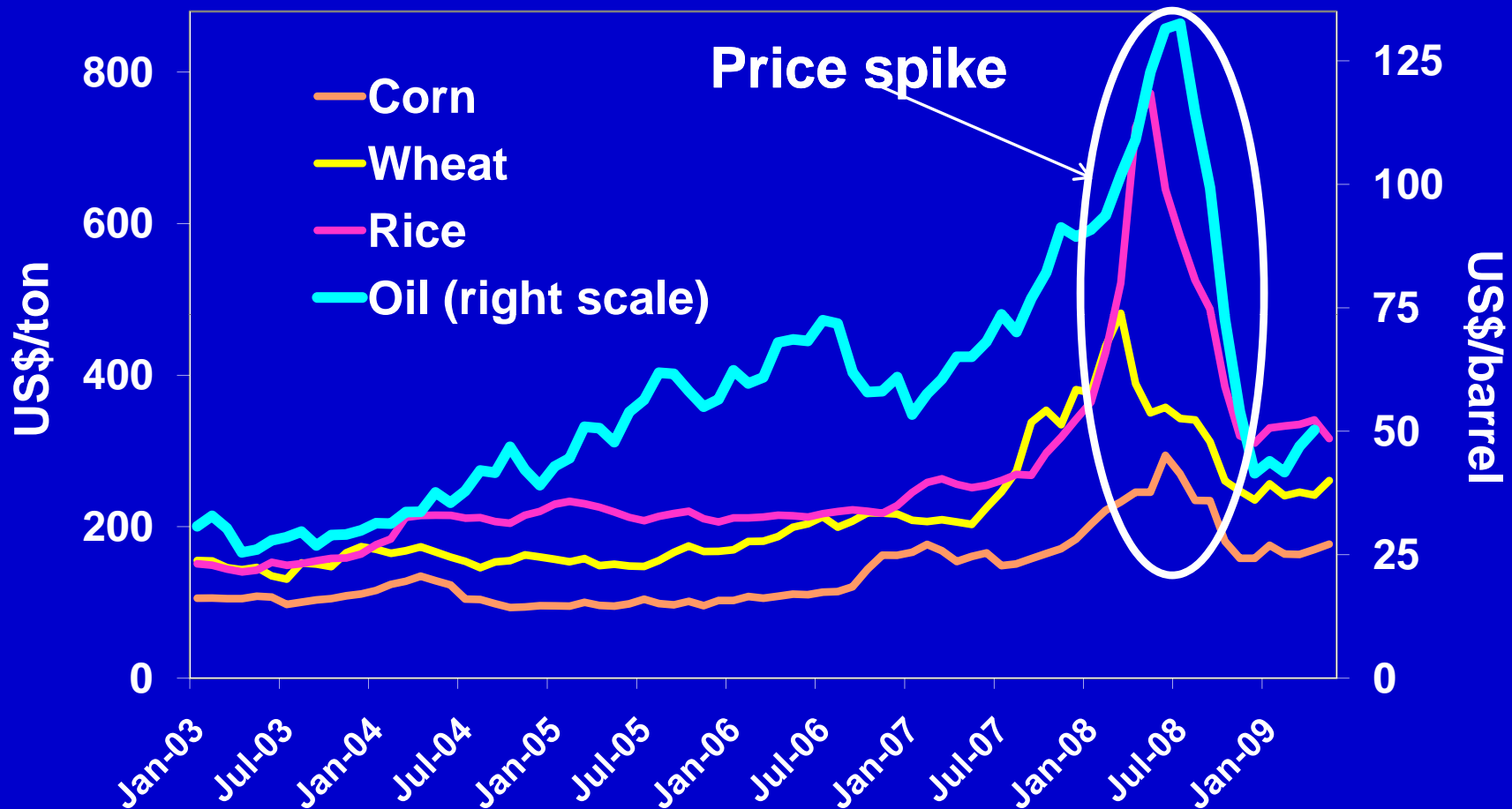


**Unsatisfactory
growth**

**Markets
nervous
about stocks**

Source: FAO 2009.

More volatility - Food crisis may be repeated soon

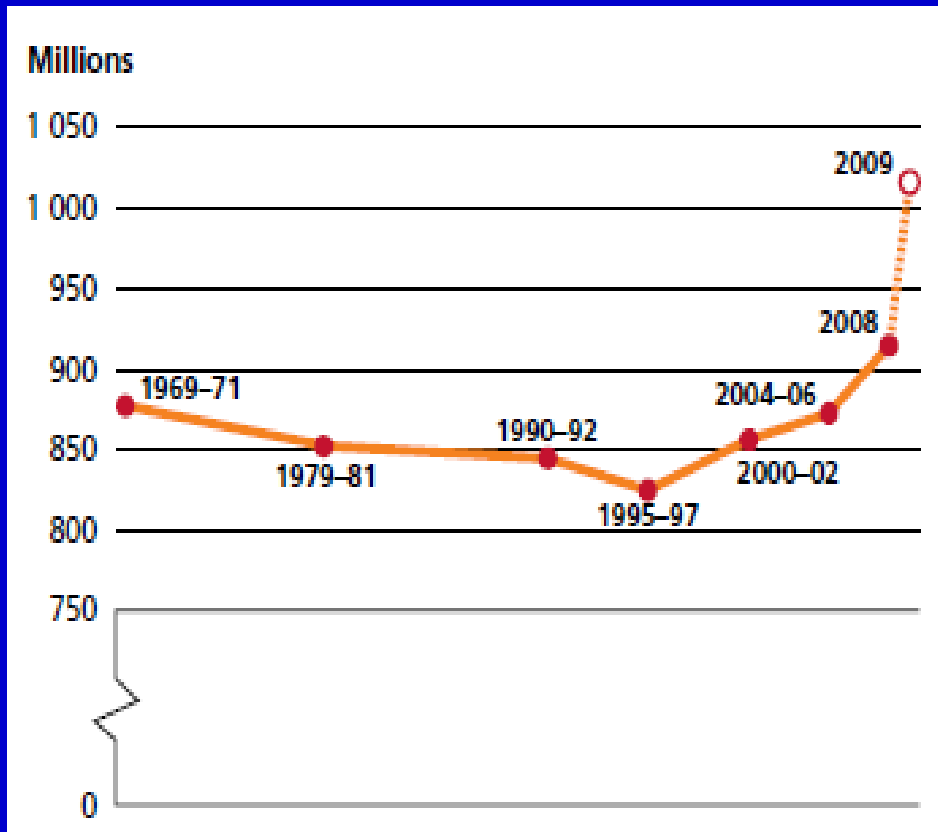


Supply deficits, low stocks, energy, adverse trade, policies, biofuels, commodity speculation, demand, climate change

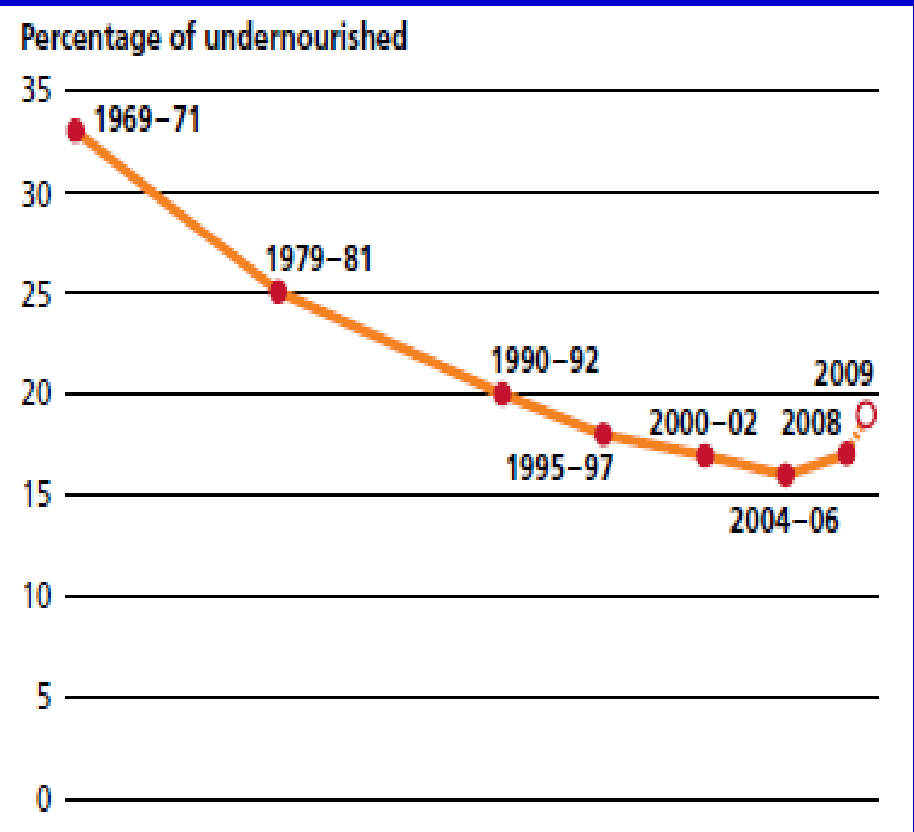
Source: J. von Braun; Data from FAO 2009 and IMF 2009.

Rising food insecurity

Number of undernourished



Proportion of undernourished



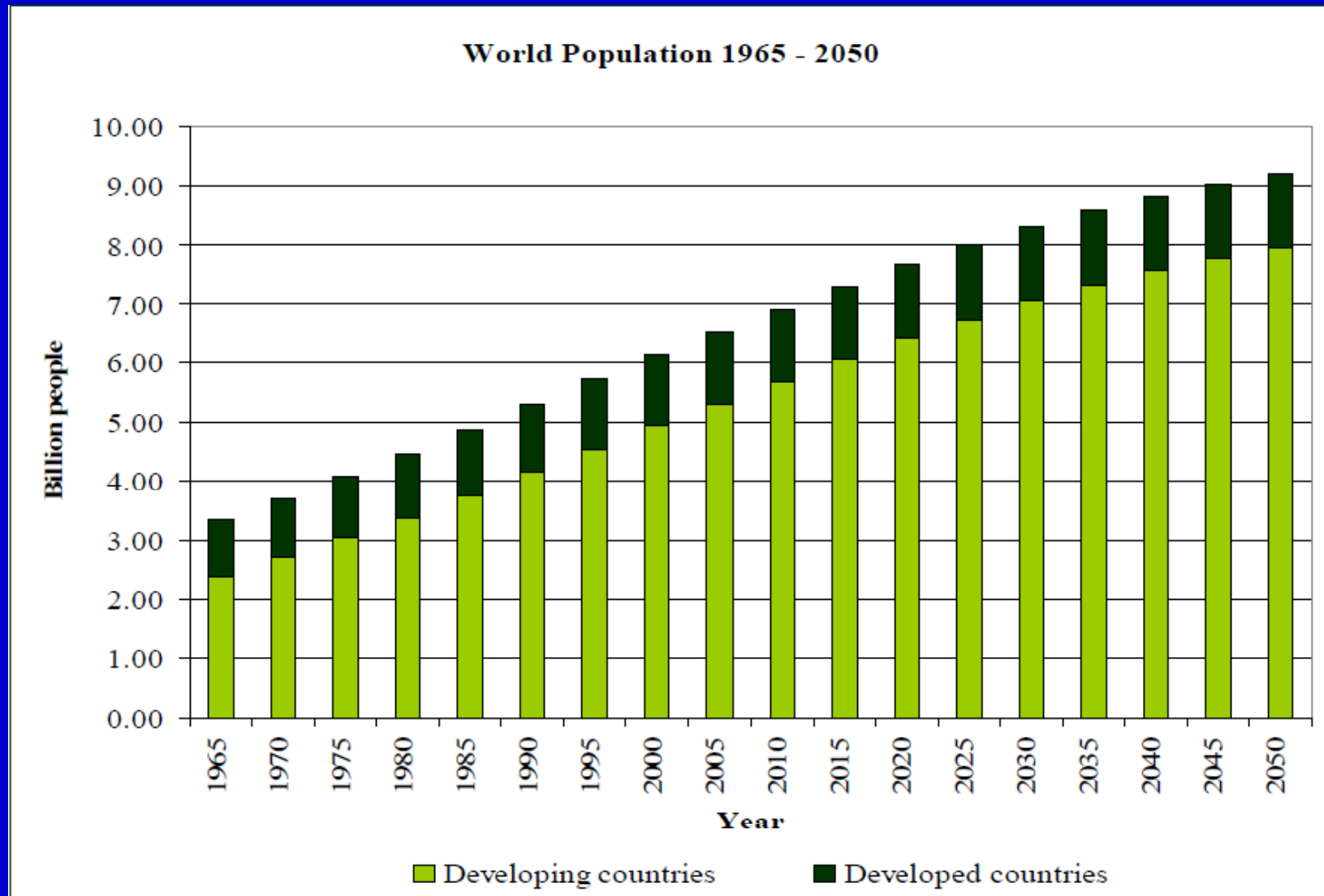
Actions by strategy team to establish an evidence base to strategize

- 1. Scenario analyses using the IFPRI IMPACT model**
- 2. Simulations of needed scale and impact of agric. R&D**
- 3. Comprehensive mapping of poverty and opportunities**
- 4. Decision support tools**
- 5. Large-scale scientists survey of key opportunities**
- 6. Workshops with leading scientists and partners**
- 7. Workshop on poverty research**
- 8. Consultations for gender integration in the SRF**

Documentation available on the [CGIAR Alliance website](#)

**Strategy must build on
foresight**

Population Outlook 2050



Source: FAO 2009.

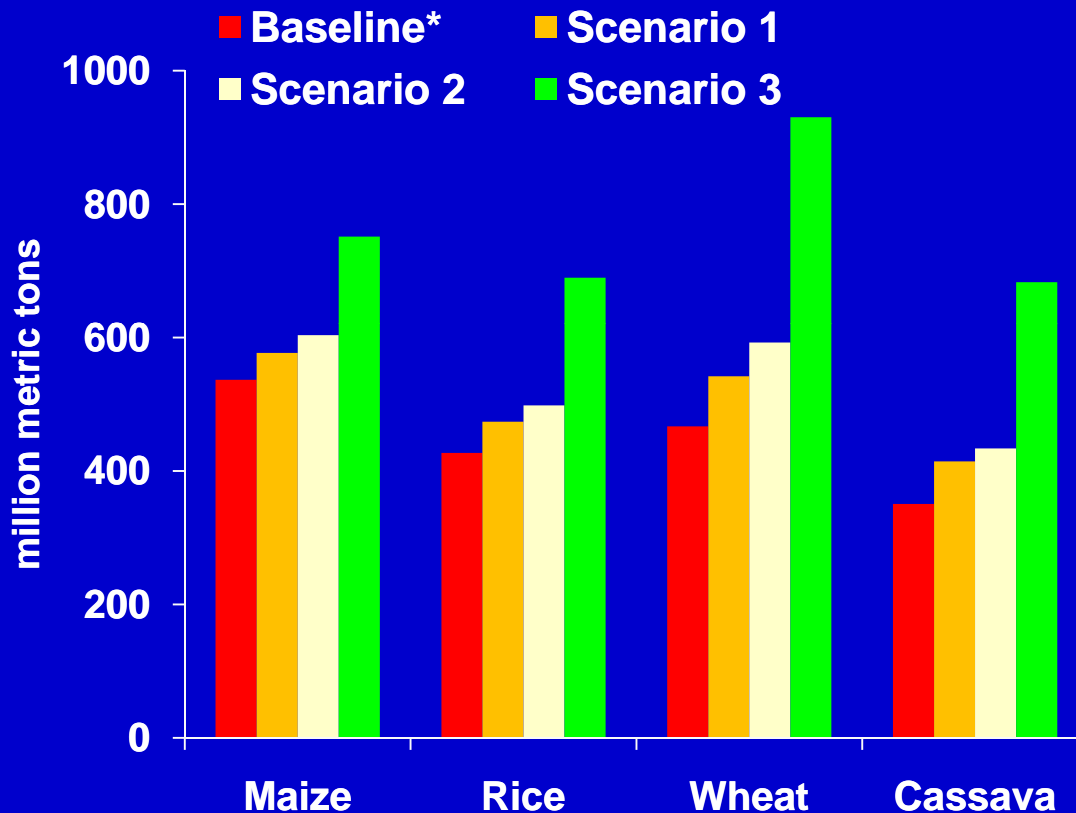
Scenario Analyses for Identifying the Strategic Outcomes

Scenario 1: Increased agricultural research investment (60% increase in crop yield growth and 30% increase in livestock)

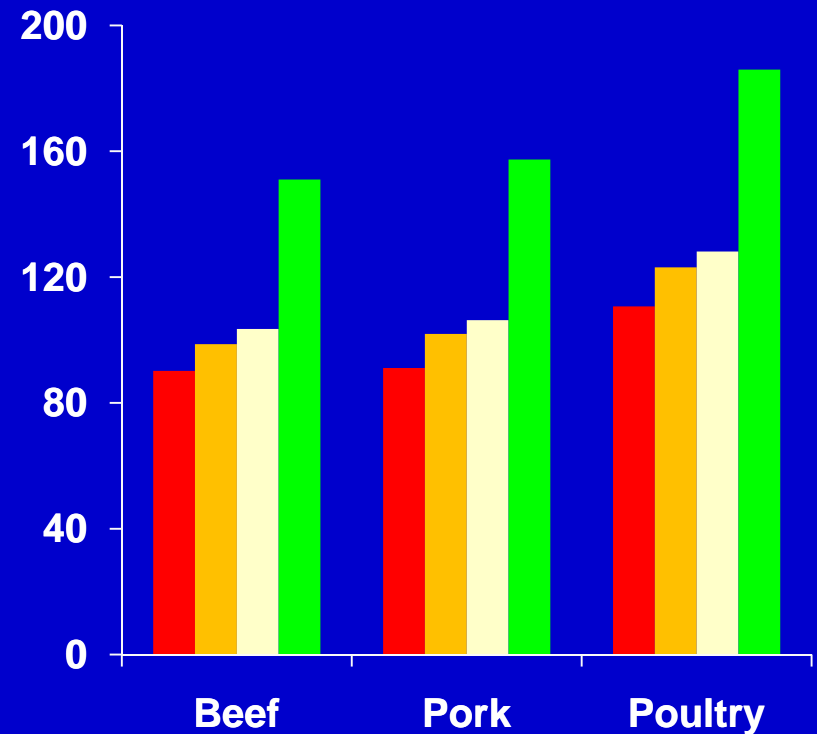
Scenario 2: Enhanced natural resource management with enhanced market efficiency

Scenario 3: Scenario 1 + Scenario 2 + more efficient R&D and irrigation

Food Production in Developing Countries, 2050

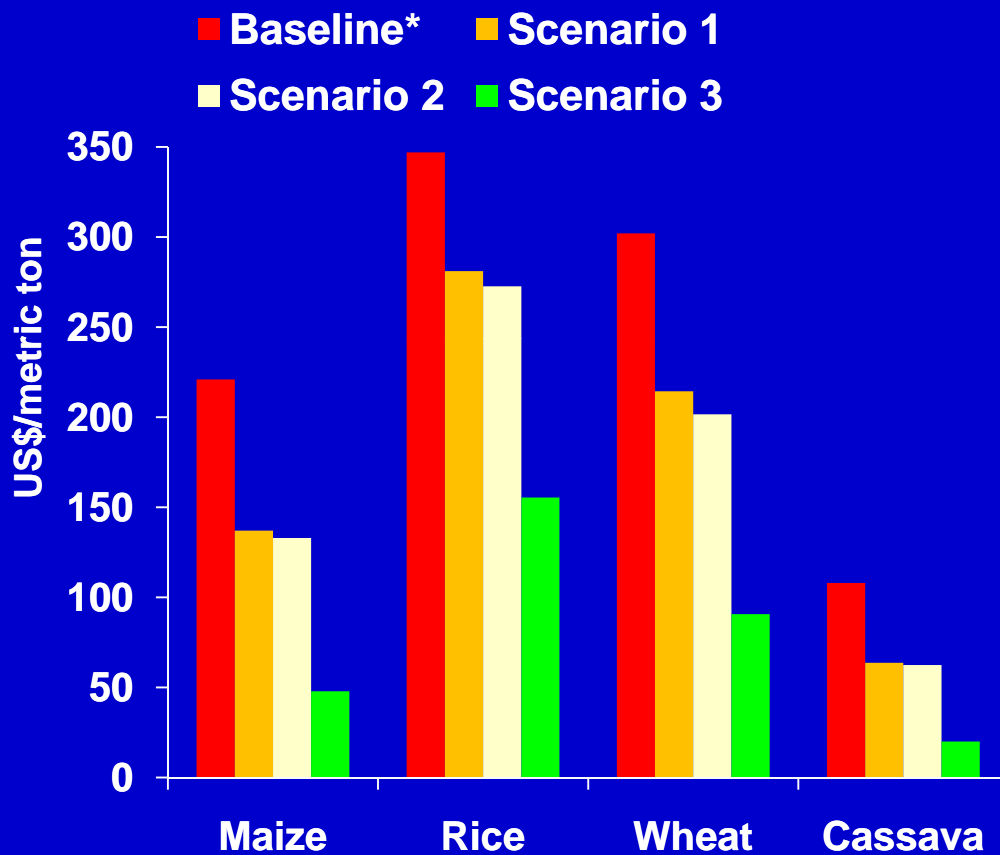


Large gains with comprehensive investment and policy (Scenario 3)

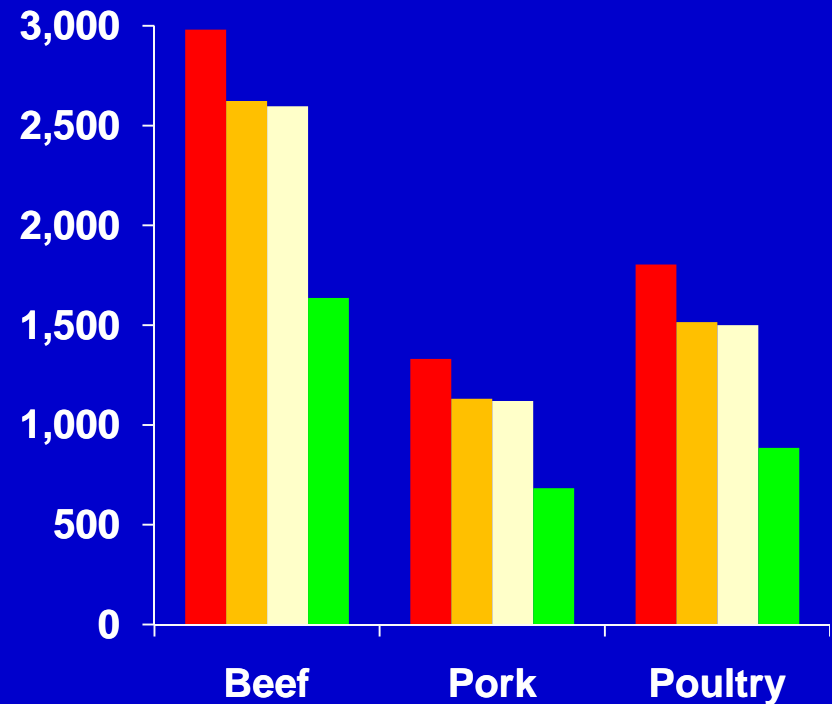


* The baseline scenario is with climate change.
Source: Rosegrant et al. (IFPRI) 2009.

World Food Prices, 2050



Large gains with comprehensive investment and policy (Scenario 3)



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Source: Rosegrant et al. (IFPRI) 2009.

Child Malnutrition Changes, 2050

	Scenario 1	Scenario 2	Scenario 3
	(% change from baseline*)		
East Asia & Pacific	-26	-8	-41
Latin America & Caribbean	-21	-7	-46
South Asia	-8	-3	-22
Sub-Saharan Africa	-24	-7	-59
Developing	-17	-5	-39

**Large gains with comprehensive investment and policy
(Scenario 3)**

* The baseline scenario is with climate change.
Source: Rosegrant et al. (IFPRI) 2009.

Strategy must build on hindsight

Looking back:

- **What made things work in agricultural development for food security?**
- **Lessons from big proven successes in agriculture and food security**

MillionsFed

PROVEN SUCCESSES IN AGRICULTURAL DEVELOPMENT

www.ifpri.org/millionsfed



Global

- **Fighting a "Shifty Enemy"**
The international collaboration to contain wheat rusts
- **Conquering the Cattle Plague**
The global effort to eradicate rinderpest

South America



- **Innovating in the Pampas**
Zero-tillage soybean cultivation in Argentina

Africa

- **Resisting Viruses and Bugs**
Cassava in Sub-Saharan Africa

- **Re-Greening the Sahel**
Farmer-led innovation in Burkina Faso and Niger

- **Navigating through Reforms**
Cotton reforms in Burkina Faso

- **Breeding an "Amaizing" Crop**
Improved maize in Kenya, Malawi, Zambia, and Zimbabwe

- **Unlocking the Market**
Fertilizer and maize in Kenya

Asia

- **Transforming Agriculture**
The Green Revolution in Asia

- **Counting on Beans**
Mungbean improvement in Asia

- **Leaving the Plow Behind**
Zero-tillage rice-wheat cultivation in the Indo-Gangetic Plains

- **Seeing the Forest through the Trees**
Community forestry in Nepal

- **Pushing the Yield Frontier**
Hybrid rice in China

- **Crossing the River while Feeling the Rocks**
Land-tenure reform in China

- **Improving Crops for Arid Lands**
Pearl millet and sorghum in India

- **Connecting the Milk Grid**
Smallholder dairy in India

- **Pumping up Production**
Shallow tubewells and rice in Bangladesh

- **Diversifying into Healthy Diets**
Homestead food production in Bangladesh

- **Exiting from Collective Agriculture**
Land-tenure reform in Vietnam

- **Farming the Aquatic Chicken**
Improved tilapia in the Philippines

Source: Spielman, Pandya-Lorch 2009

Features of Successes



Source: Spielman, Pandya-Lorch 2009

Why did it work?

Drivers of 20 big successes

- Science and technology
- Complementary investments
- Private incentives
- Cooperation and collaboration
- Timing and planning
- Experimentation and evolution
- Community involvement
- Leadership and dedication



Source: Spielman, Pandya-Lorch 2009

Strategy must have
a **vision** (goal), and
objectives (sub-goals, which
are instruments), and
actual **results** (ambitious but
realistic)

The CGIAR Vision (goal)

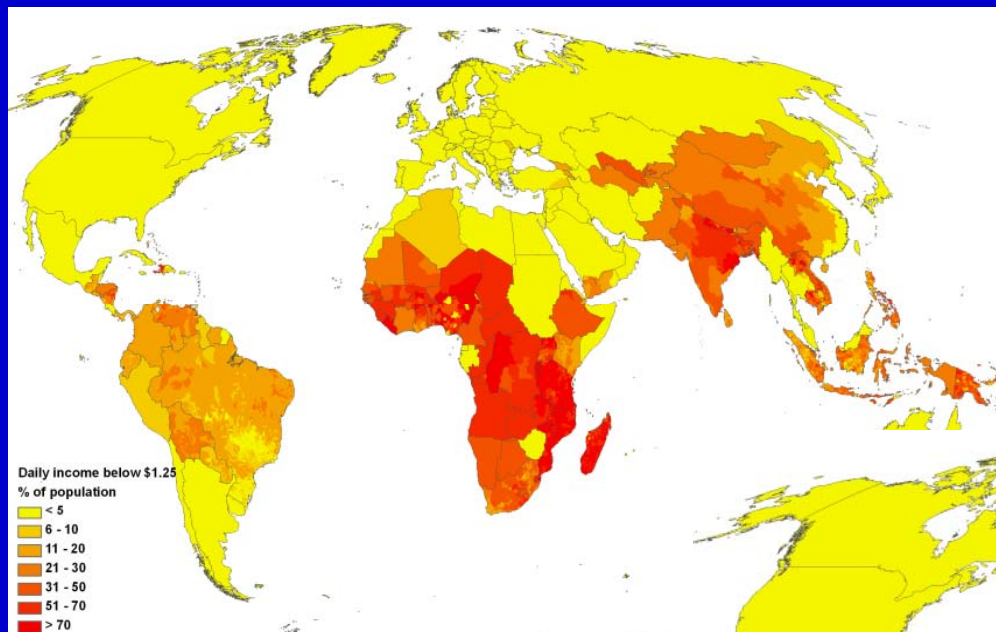
Reduce poverty and hunger,
improve human health and nutrition, and
enhance ecosystem resilience
through *high-quality international
agricultural research, partnership and
leadership*

A poor people focused CGIAR strategy must start with poor people (who and where), and have an emphasis on small farmers

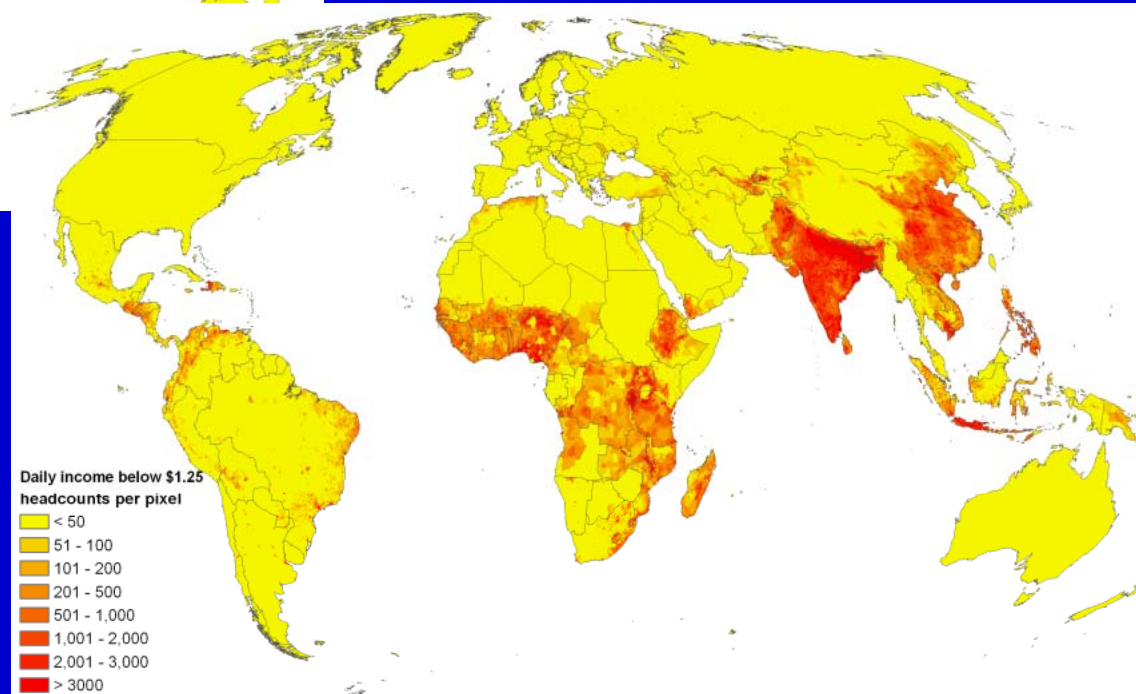
Focus on where the poor are

Sub-national poverty ca. 2005 (\$1.25/day)

Prevalence



Number



Source: Stan Wood et al. (IFPRI) 2009.

How big a CGIAR is needed?

	R&D investment (bil. of 2005 US\$)		Change in # of poor (mil.)
	2008	2025	2008–2025
Scenario A—0.5% TFP growth in productivity	5.1	18.6	-318
Scenario B—poverty minimization	5.1	15.3	-348
Scenario C—0.5% TFP growth in productivity & higher R&D efficiency	5.1	16.4	-401

Note: Scenarios with poverty line of \$1.25/day. TFP: Total Factor Productivity

If CGIAR at 10%: Funding needs to triple by 2025

The Strategic Objectives (instruments)

1. Create and accelerate sustainable increases in the productivity and production of healthy food by and for the poor. **“Food for People”**
2. Conserve, enhance, and sustainably use natural resources and biodiversity to improve the livelihoods of the poor in response to climate change and other factors. **“Environment for People”**
3. Promote policy and institutional change that will stimulate agricultural growth and equity to benefit the poor, especially rural women and other disadvantaged groups. **“Policy for People”**

Moving from Vision to Results-based Framework

- **Results-oriented strategy that sets directions and outcomes**
- **Management decisions and resource allocations that align with strategic outcomes**
- **Program performance indicators that target clients and their beneficiaries and improvements in the lives of beneficiaries**
- **Indicators that are used as signals to motivate staff and to provide a base for learning and improving**

System-level Results Criteria

(Strategy Team's assessment)

1. Lift productivity and reduce poverty: 49%

increase in annual agricultural productivity by 0.5% pts to help reduce poverty by 15% by 2020

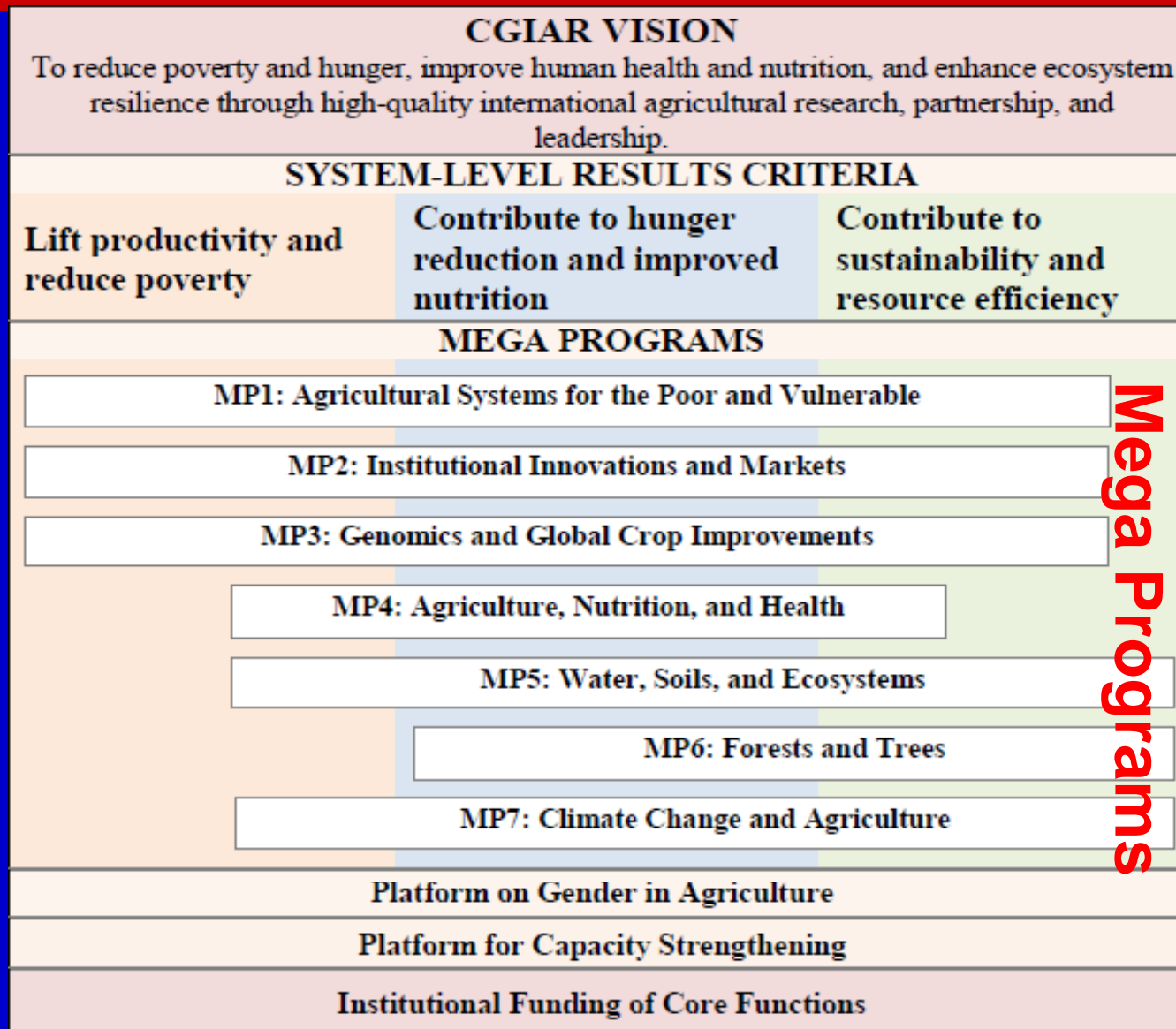
2. Contribute to reduction of hunger and improved nutrition: 26%

reduction in hunger and improved nutrition in line with MDG 1 (halve undernourished by 2015; reduce child undernutrition by 10%)

3. Contribute to sustainability and resource efficiency: 25%

reduction in impacts of water scarcity and climate change on agriculture to increase yields, reduce soil erosion etc.

The Strategy and Results Framework



Mega Programs

Identifying Mega Programs - how

- 1. Achieving greatest impact by integrating research on**
 - Increased productivity
 - Sustainable natural resources management
 - Institutional and policy change
- 2. Direct research to reduce poverty and hunger**
- 3. World food system dominated by set of commodities**
 - Role of dominating crops
 - Diet dominating foods (at regional and agric. system levels)
 - Diet deficiency problems and opportunities for diet diversity

MP development as an iterative process with feedbacks

Each Mega Program

- **Addresses one or more strategic objectives**
- **Has sufficient scale to deliver on results and/or measurable impacts**
- **Reflects the CGIAR's comparative advantage in leading/catalyzing research**
- **Has a clear impact pathway**
- **Has an investment time horizon of 6 to 20 years**
- **Has a simple and cost-effective management mechanism**

7 proposed Mega Programs of a \$1 bill. CGIAR

- 1. Agricultural Systems for the Poor and Vulnerable (28%)**
- 2. Institutional Innovations, Policies, and Markets (11%)**
- 3. Genomics for all products and Global Food Crop Improvements (21%)**
- 4. Agriculture, Nutrition, and Health (8%)**
- 5. Water, Soils, and Ecosystems (18%)**
- 6. Forests and Trees (6%)**
- 7. Climate Change and Agriculture (7%)**

Logic of MP portfolio – addressing the big issues and tapping synergies

- **Growth in low income countries agricultural systems is essential for poverty reduction (MP1)**
- **Peoples' health depends significantly on agriculture and nutrition (MP4)**
- **Advanced science for agricultural commodities and products, and breeding are key for production and resilience of developing countries' food systems (MP3)**
- **Efficient markets and institutional arrangements are key for investment and stable food systems (MP2)**
- **Sustainable and efficient natural resources are the foundation of food security and livelihoods (MP5, 6, 7)**

Synergy in the MP portfolio

The results-oriented framework (MPs to feed into system level results)

CGIAR VISION			
SYSTEM-LEVEL CRITERIA AND RESULTS			
	Lift productivity and reduce poverty	Contribute to hunger reduction and improved nutrition	Contribute to sustainability and resource efficiency
MPs	<u>MP LEVEL RESULTS</u> (indicative results to be further specified...)		
1. Agricultural Systems for the Poor and Vulnerable	Reach 250 m poor by achieving broad-based productivity increases of at least 10% over 10 years; Lift 60 m out of poverty	Contribute to affordable and healthy diets in each domain area	Maintain or improve ecosystem health and resilience
2. Institutional Innovations, Policies, and Markets	Reach 400 m small farm households by decreasing transactions costs by 30% by 2025 and mitigating risks; Increase access to inputs and finance for small farmers	Safety net program design to improve the efficiency and effectiveness of coverage for the poor	Enhance effectiveness of environmental policies
3...			

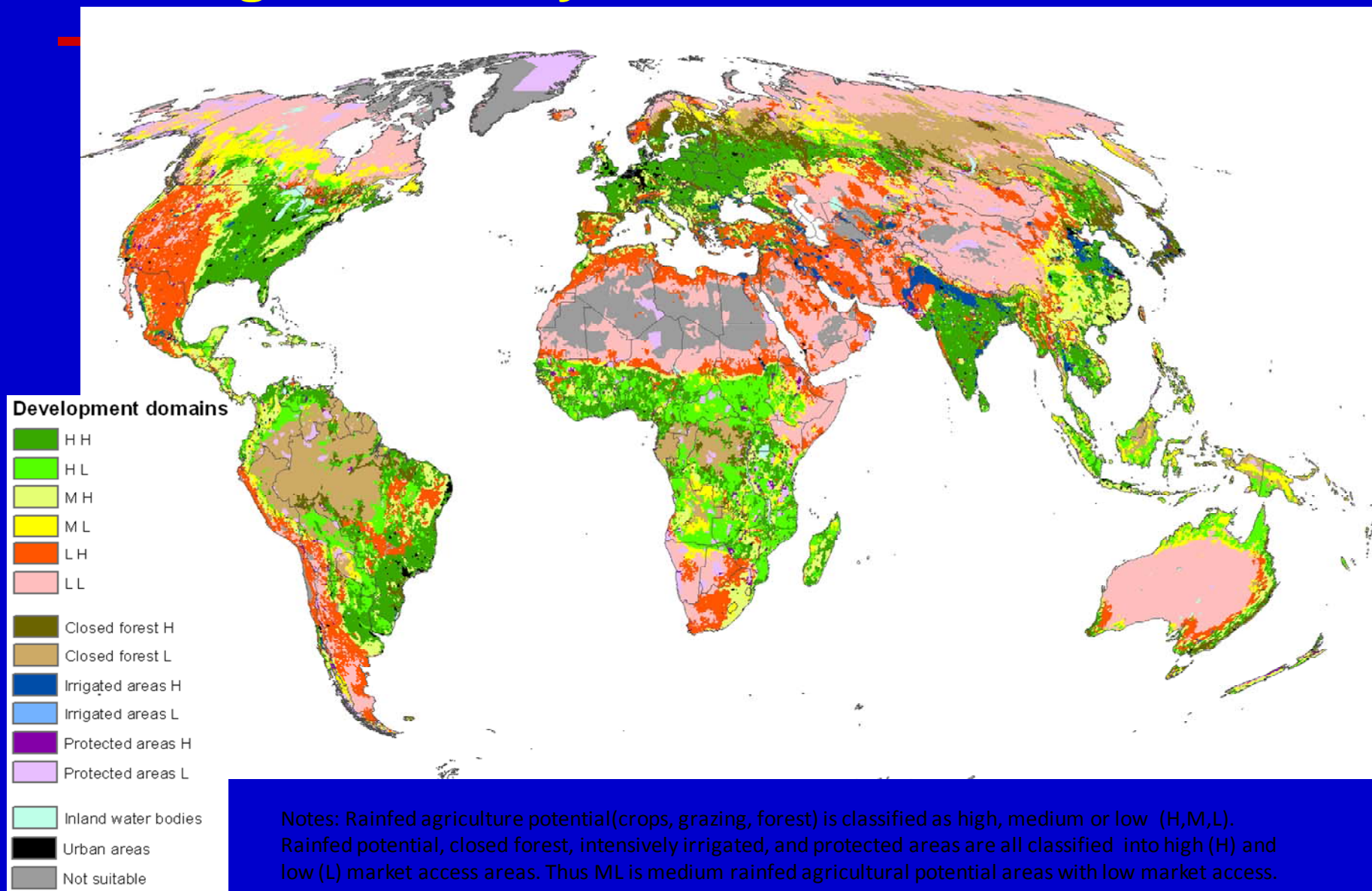
Overview

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MP1: Agricultural Systems for the Poor and Vulnerable

- Research that integrates promising crop, animal, fish, and forest production with innovative policy and natural resource interventions
- **Objective:** Improve food security in *domains* with high concentrations of the world's poor and that offer agricultural potential
- **Expected results:** Reach 250 mil. poor by increasing productivity; lift 60 mil. out of poverty
- **Annual cost:** US\$ 250-300 mil.

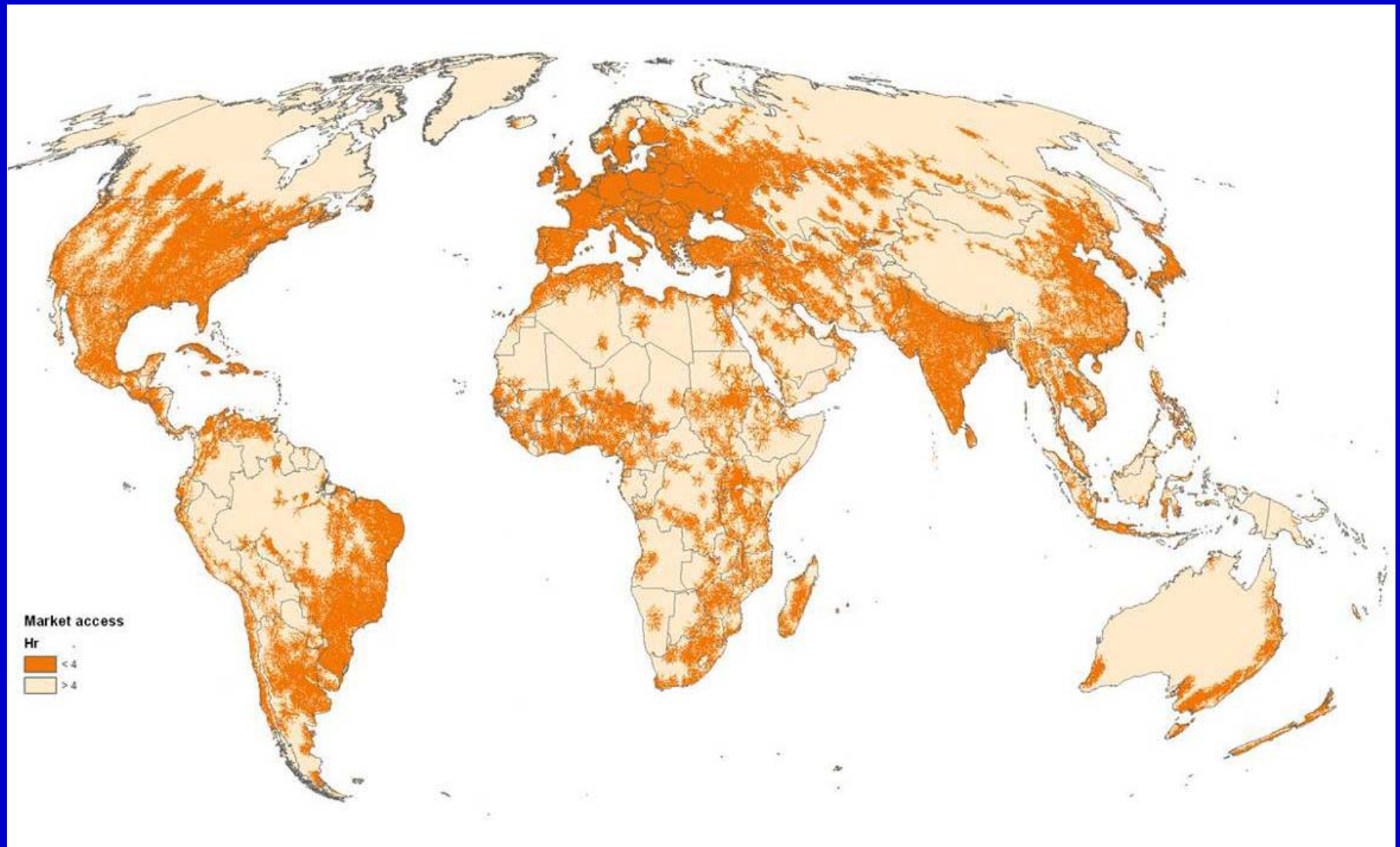
Development Domains: combining agricultural systems with infrastructure



MP 2: Institutional Innovations and Markets

- Knowledge to inform institutional changes and policy needed for a well-functioning local, national, and global food system
- **Objective:** Connect small farmers to agricultural value chains through ICTs and facilitate efficient policy and institutional reforms
- **Expected results:** Reach 400 mil. small farm households; decrease transactions costs by 30% by 2025
- **Annual cost:** US\$ 90-130 mil.

Areas of High and Low Market Access

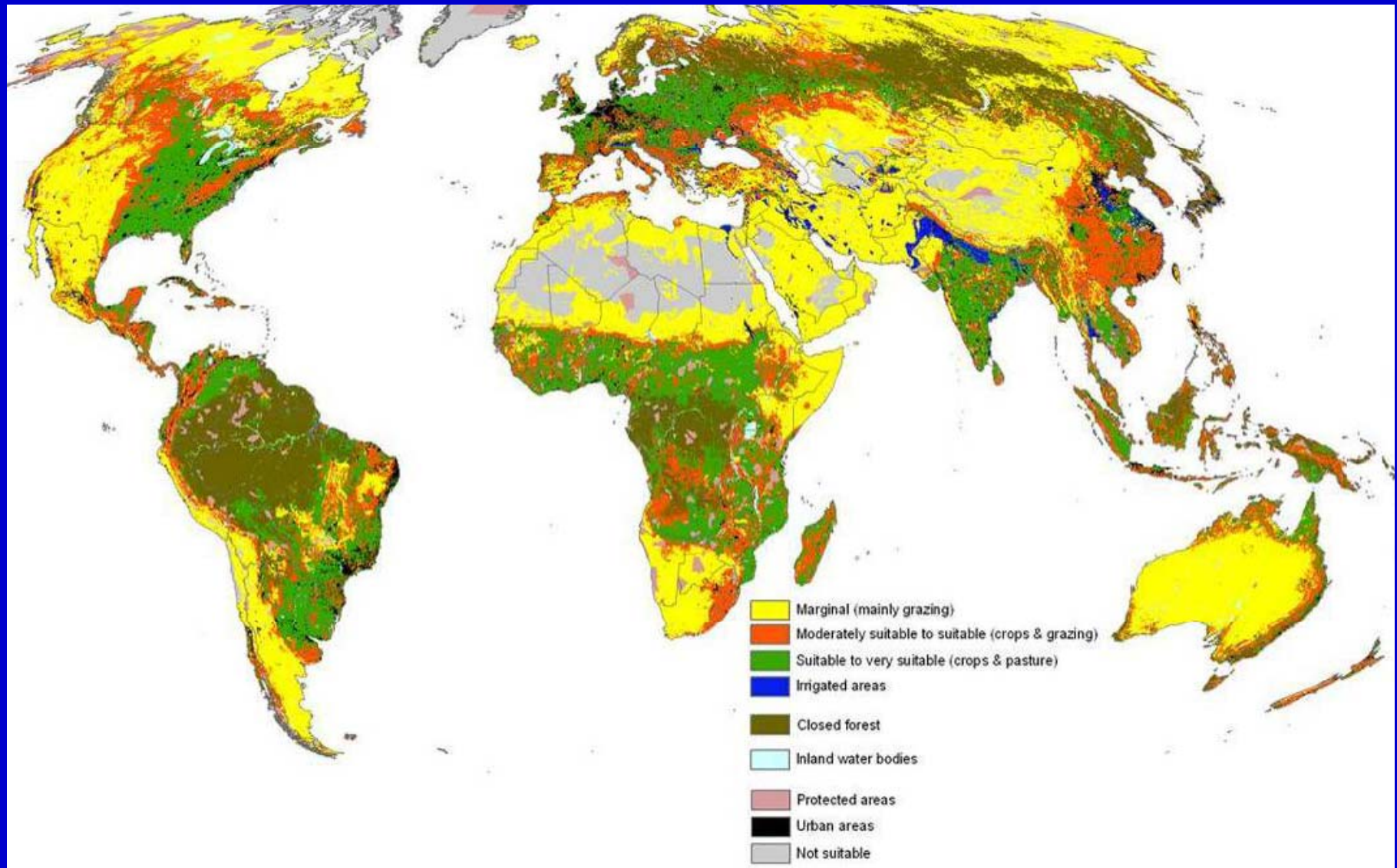


Source: Adapted from Gerald Nelson 2008.

MP 3: Genomics and Global Food Crop Improvements

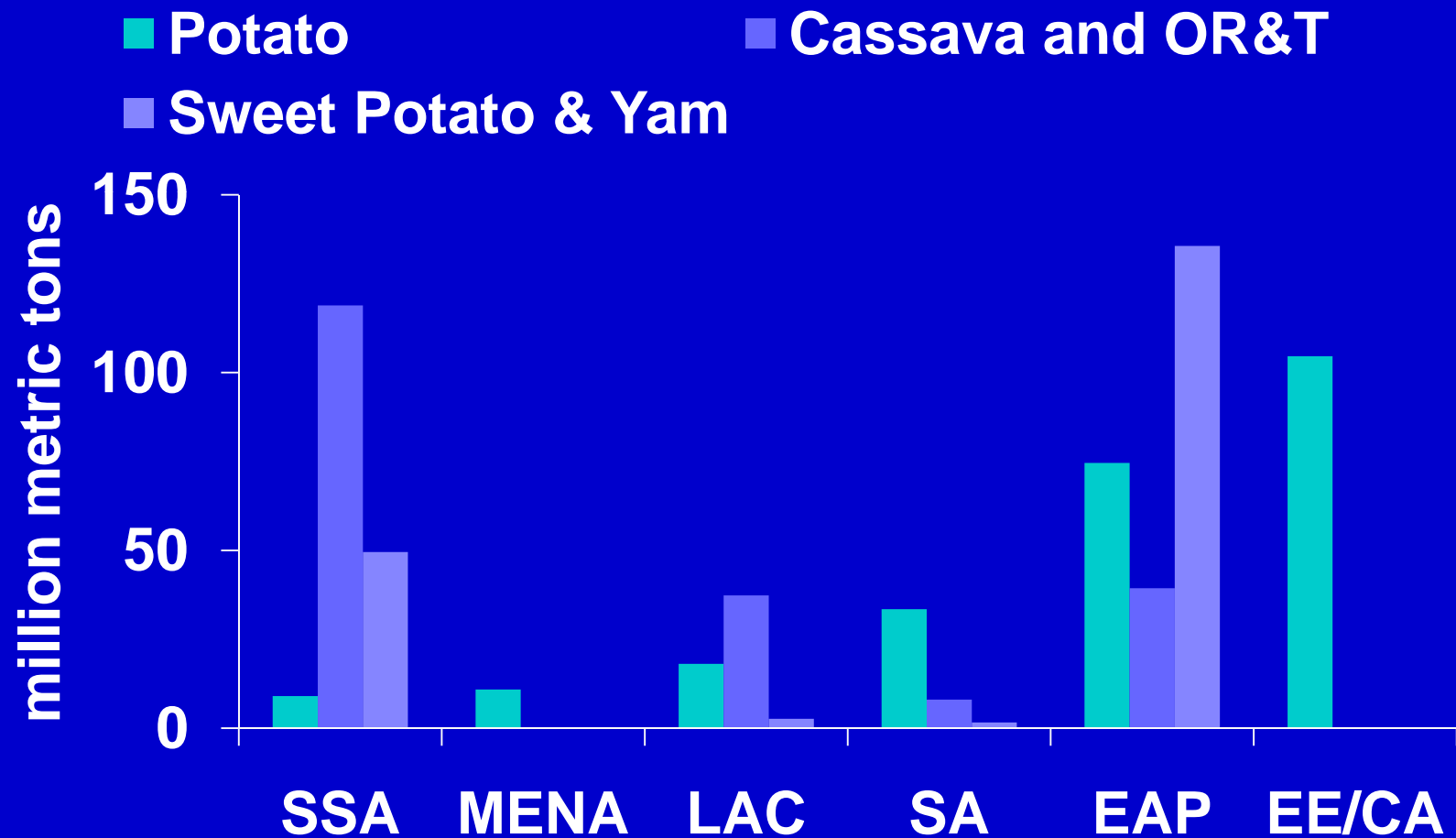
- Joint genomics research serving all crops and animal products; building on CGIAR's crucial role in conserving genetic resources
- **Objective:** To provide for the needed innovation capacity of the CGIAR; genetic improvement of the world's leading food crops (rice, wheat, maize)
- **Expected results:** Reach 2.6 bill. people; genetic gains = 60% of overall productivity gains
- **Annual cost:** US\$ 250-300 mill.

Potentials (crops, pastures, forests, water)



Source: Adapted from FGGD (FAO 2007).

Total Demand of roots and tubers, 2004-06 (Distribution among DCs is very diverse)



Source: Rosegrant 2009

The dominating roles of the leading grain crops for staple food consumption

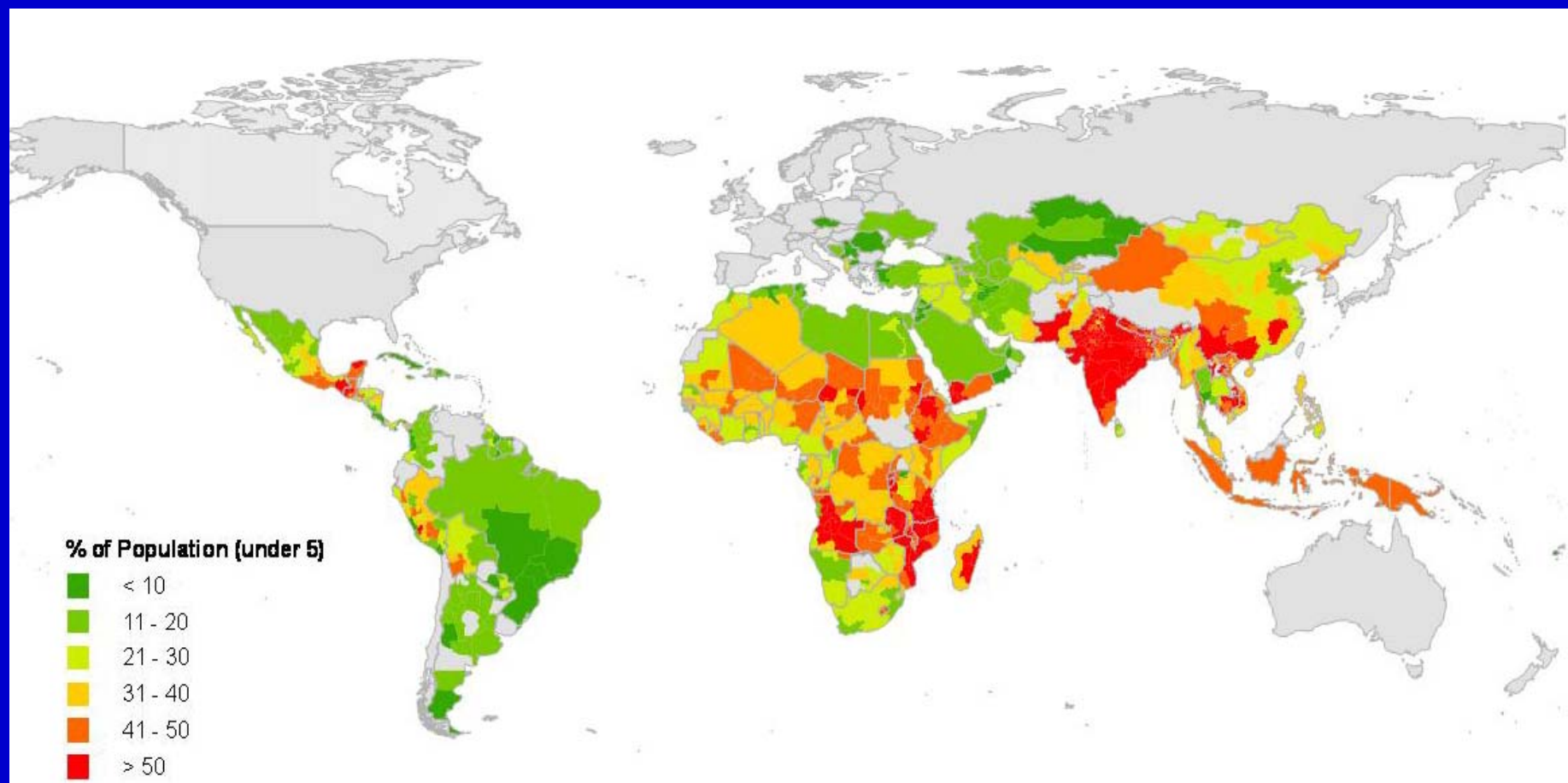
Commodity	Number of countries where more than 30% of food calories come from these crops, 2003	Population of the countries (millions), 2006
Rice only	18	802
Maize only	10	248
Wheat only	17	564
Rice, maize, and wheat	94	4,574

Source: FAO data base

MP 4: Agriculture, Nutrition, and Health

- Improvement in nutritional value of food and diets, enhanced targeted nutrition and food safety programs, and changed agricultural commodities and systems
- **Objective:** To enhance nutrition and health outcomes
- **Expected results:** Improved health, esp. maternal and child; Reduce childhood undernutrition by 10% by 2025
- **Annual cost:** US\$ 70-100 mil.

Child Malnutrition: Stunting



MP 5: Water, Soils, and Ecosystems

- Harmonization of agricultural productivity and environmental sustainability goals through policies, methods, and technologies
- **Objective:** To improve water and soil management
- **Expected results:** Increase crop/water productivity by 20-50% over 30 years; reduce agric. water demand by 10% in stressed systems
- **Annual cost:** US\$ 100-130 mil.

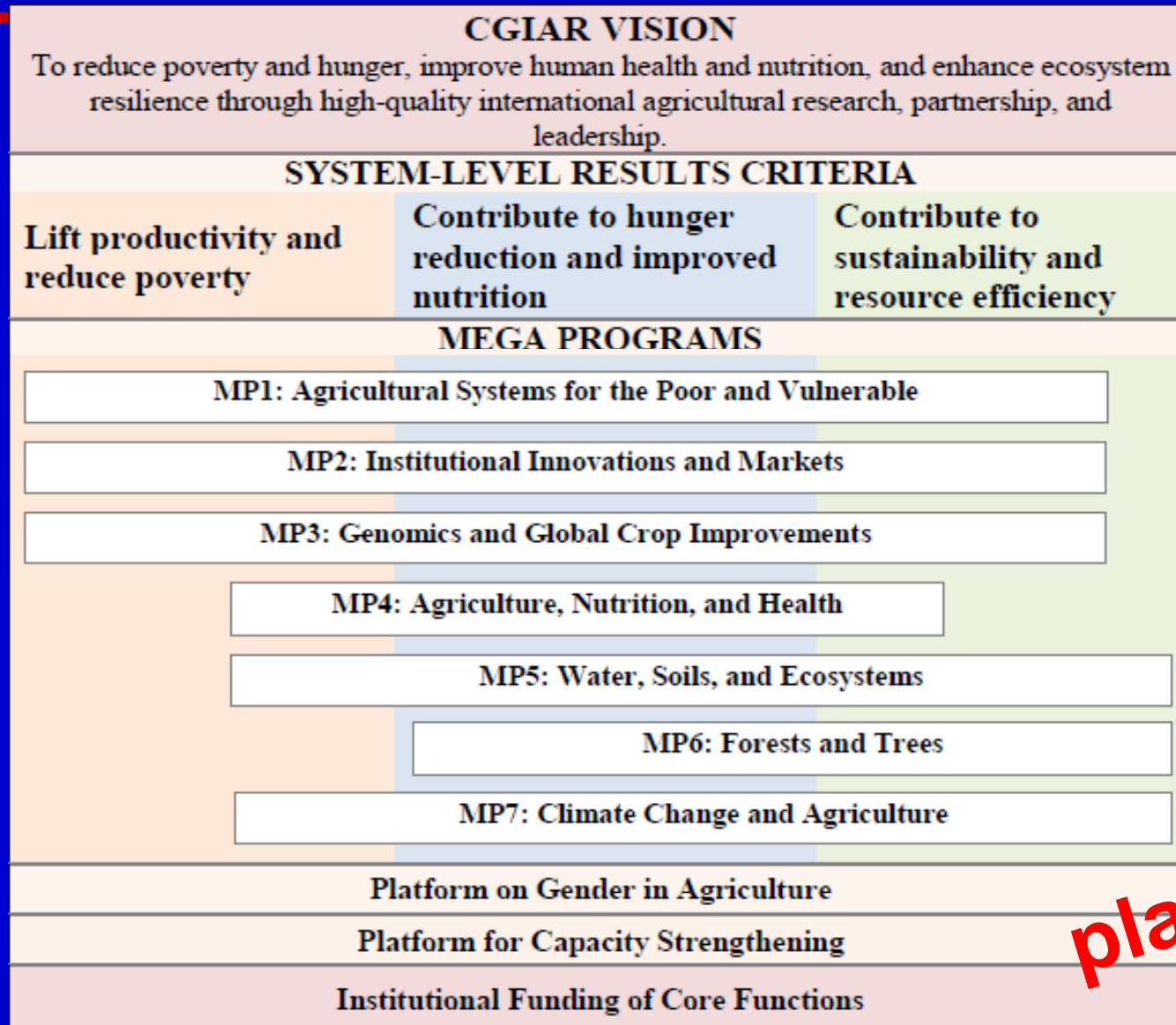
MP 6: Forests and Trees

- **Technical, institutional, and policy changes for sustainable development and the poor**
- **Objective:** To help conserve forests for humanity and harness forest ecosystem services, including forestry and biomass production potentials
- **Expected results:** Reduce deforestation by 10% (2005-2030); increase income of forest communities by 10-fold
- **Annual cost:** US\$ 50-70 mil.

MP 7: Climate Change and Agriculture

- **Diagnosis of the directions and potential impacts of climate change for agriculture**
- **Objective:** To identify *adaptation and mitigation options for agricultural, food, and environmental systems*
- **Expected results:** Develop int'l lead role for CGIAR on agriculture-climate change; measurable results to be developed
- **Annual cost:** US\$ 60-90 mil.

The Strategy and Results Framework



platforms

Gender Platform

- **Serves as a support unit for integrating gender and providing the latest research findings and results to the MPs across the CGIAR**
- **Expected results:**
 - Narrowed gender disparities in new technology adoption
 - Increased income for women through resource management and marketing opportunities
 - Improved gender equity in access to and control of benefits from natural resources
 - More women and children with nutritious diets
 - Positive impact on 200 million people

Capacity-strengthening Platform

- **Establish a support unit on capacity strengthening to serve MPs, centers, and partners in cooperation with GFAR and others**
- **Expected results:**
 - Enhanced participation of national scientists in global innovation systems
 - More effective participation by NARS in MPs
 - Development and use by NARS of new ICTs and knowledge management tools for innovation
 - Greater engagement of universities

More ambitious than just consultations with partners

Managing the SRF and MPs

- **Consortium Board** responsible for MP portfolio and accountable to the **Fund**
- **Performance contracts** between Consortium and lead center(s) for each MP
Lead center(s) to manage each MP
- **MP proposals with business plans to be** prepared for performance contracts

MP business plans must be SMART
(Specific, Measurable, Achievable, Relevant, and Time-bound)

Some Critique on the draft SRF Reports

- Evidence base and philosophical underpinnings of SRF require further elaboration
- Logic of deriving MP portfolio from the Strategy needs to be clearer
- The 3 strategic objectives are not well balanced
- Need to address impact pathways for poverty impact
- Need to be clear on roles of the CGIAR and partners
- Climate concerns should be integrated across MPs
- Need to avoid complex management, bureaucracy, and increased transaction costs

“When everything has to be right, something isn't.” S J Lec

Overview

1. CGIAR Strategy: The Context
2. Towards a Strategy and Results Framework
3. The Mega Programs and Platforms
4. **Moving Forward**

Moving forward: how?

- Debate, critique, reviews
- Analysis
- Maintaining evidence based approach
- Be aware of politics and lobbying
- Strategizing is permanent process

Following principles of pragmatic strategizing:
fast, in realistic steps, experimenting, no
delay, feed back;

Take some risks: its research !

Next Steps for SRF and MPs: from Business Meeting to GCARD and beyond

- 1. Late Jan: meeting of Alliance, GCARD, SC, Consortium Board etc. to define ways.**
- 2. MPs become “communications and consultations domains” (in GCARD process)**
- 3. SRF and MPs available for further deliberation at GCARD Montpellier.**
- 4. Lead Centers identified. Development of Business plans for MPs approved by the Consortium Board after consultation with Fund Council (April – Nov.)**
- 5. Nov 2010 / Jan 2011 Phase in of MPs.**

The Strategy Team Thanks

Many helped the Strategy process!

- **See all those in the acknowledgements**
- **The participants in many seminars**
- **Survey participants**
- **Wise advise by many – unrecorded**
- **The ongoing regional and GFAR consultations**

The success of the strategy is to be measured by improved food security and reduced poverty