



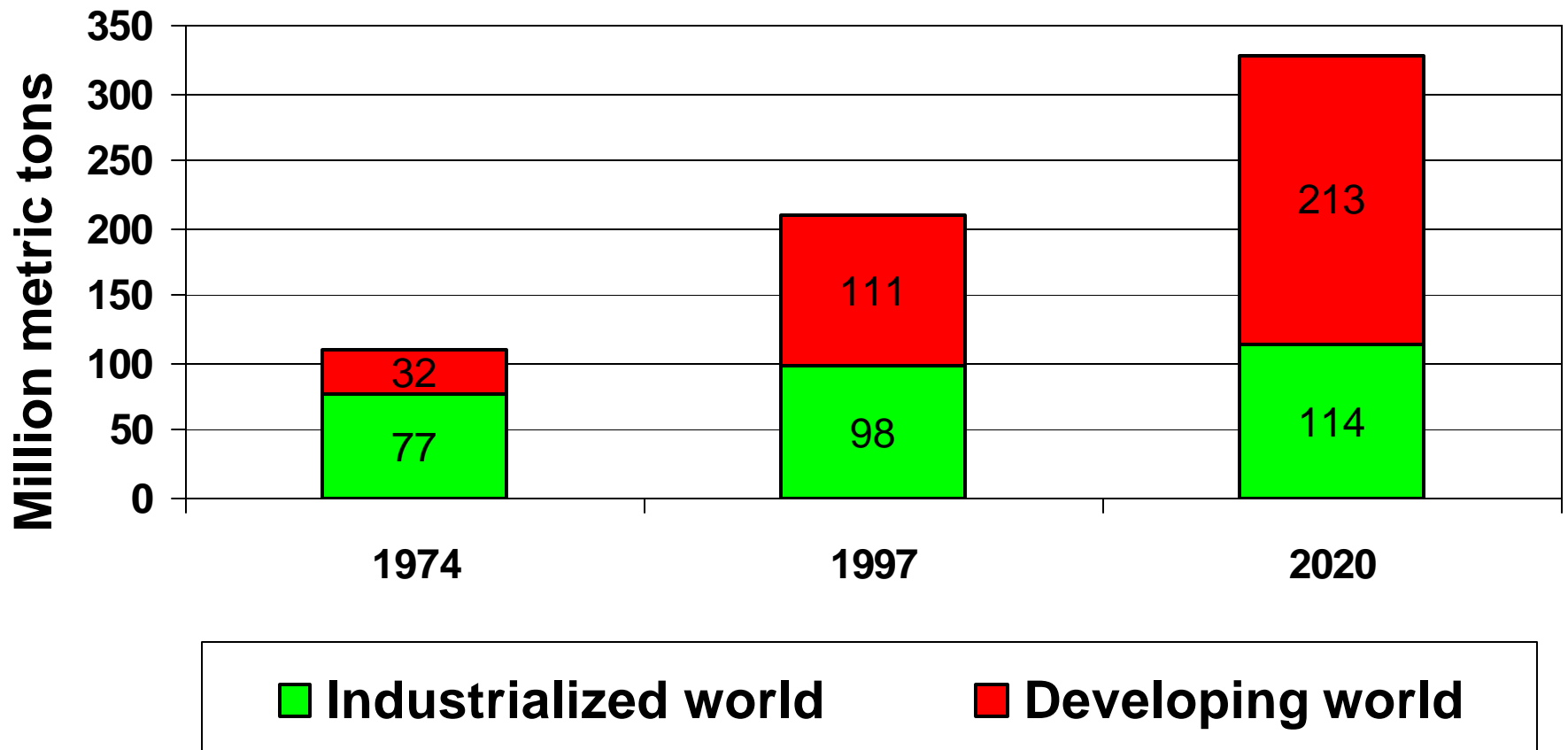
# The China-CGIAR Partnership: *An Overview*

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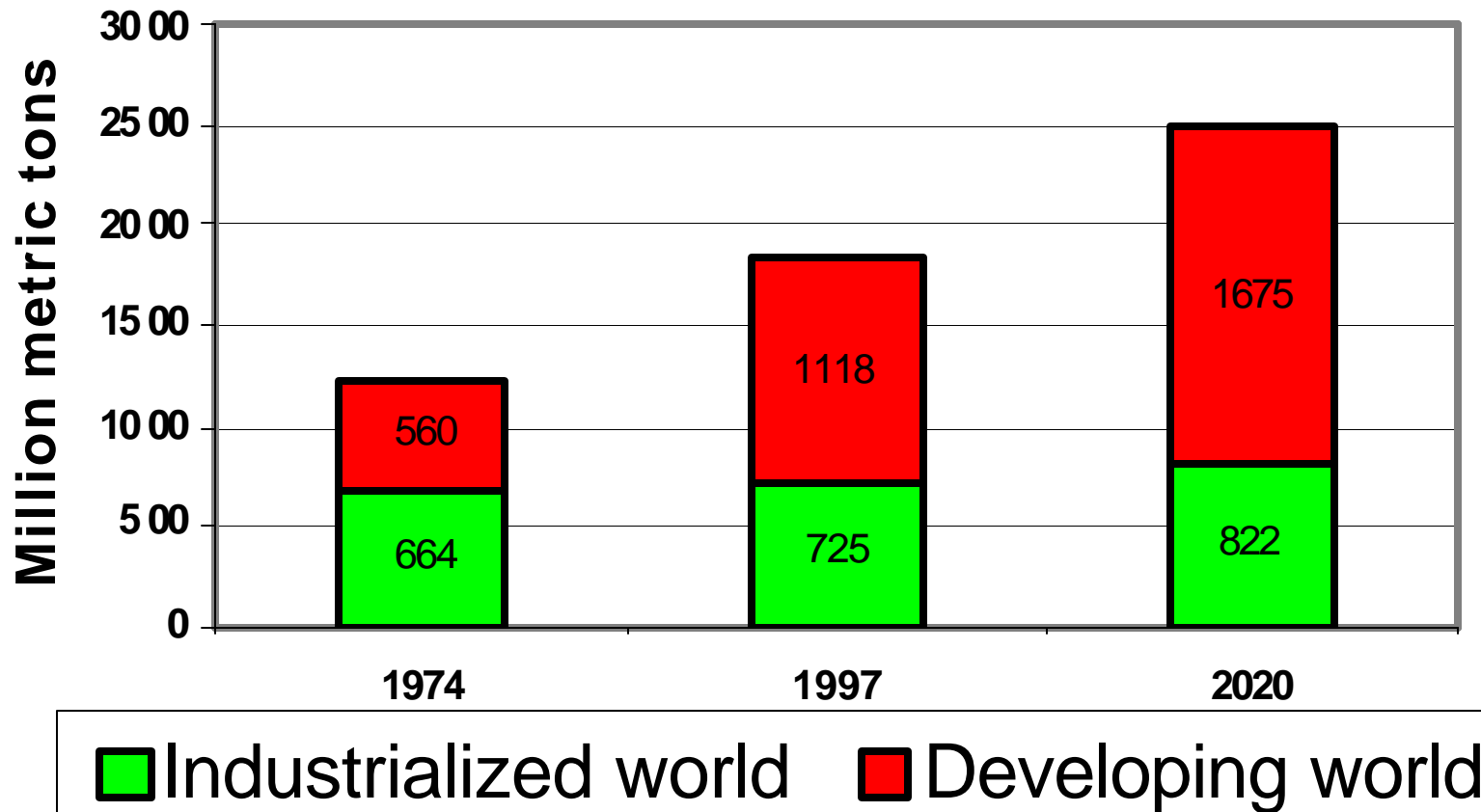
# Our changing world

- World population: 9 billion by 2050
- Doubling of food demand over next 30-40 years, mostly in developing countries
- Creating wealth essential for tackling entrenched poverty, especially in rural areas of developing countries
- Reducing agriculture's adverse ecological footprint – developing countries most vulnerable to climate change
- Meeting the challenge of rapid urbanization
- Balancing internal and external support

# Future cereal demand



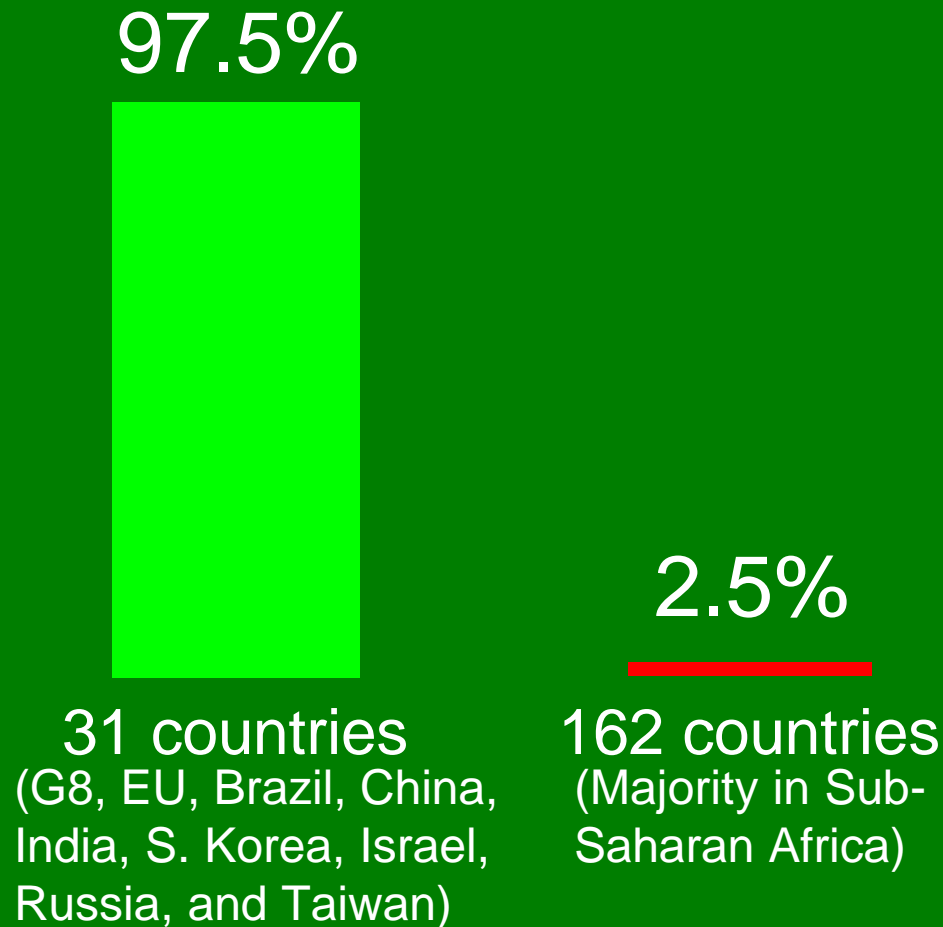
# Future meat demand



## and rapidly changing contexts

- Intellectual property rights
- Social acceptance of new technologies
- Accelerating pace of scientific change – (is N/S gap increasing?)
- Private sector investment in S&T
- New 'threats' and 'opportunities' (climate change, globalization, ICT, etc)
- Requires dialogues, new strategies, clear priorities and new working modalities

# Knowledge inequities: output of most-cited publications, 1993-2001



Source: D.A. King, Scientific Impact of Nations,  
*Nature*, July 15, 2004

# Changing needs require changing modalities of cooperation

- **Collaboration**
  - Suited to different partners
- **Joint projects, clear deliverables**
- **KM**
- **Mobilize resources (human, S&T, financial)**
- **Creativity**

# A strategic alliance for the 21<sup>st</sup> century

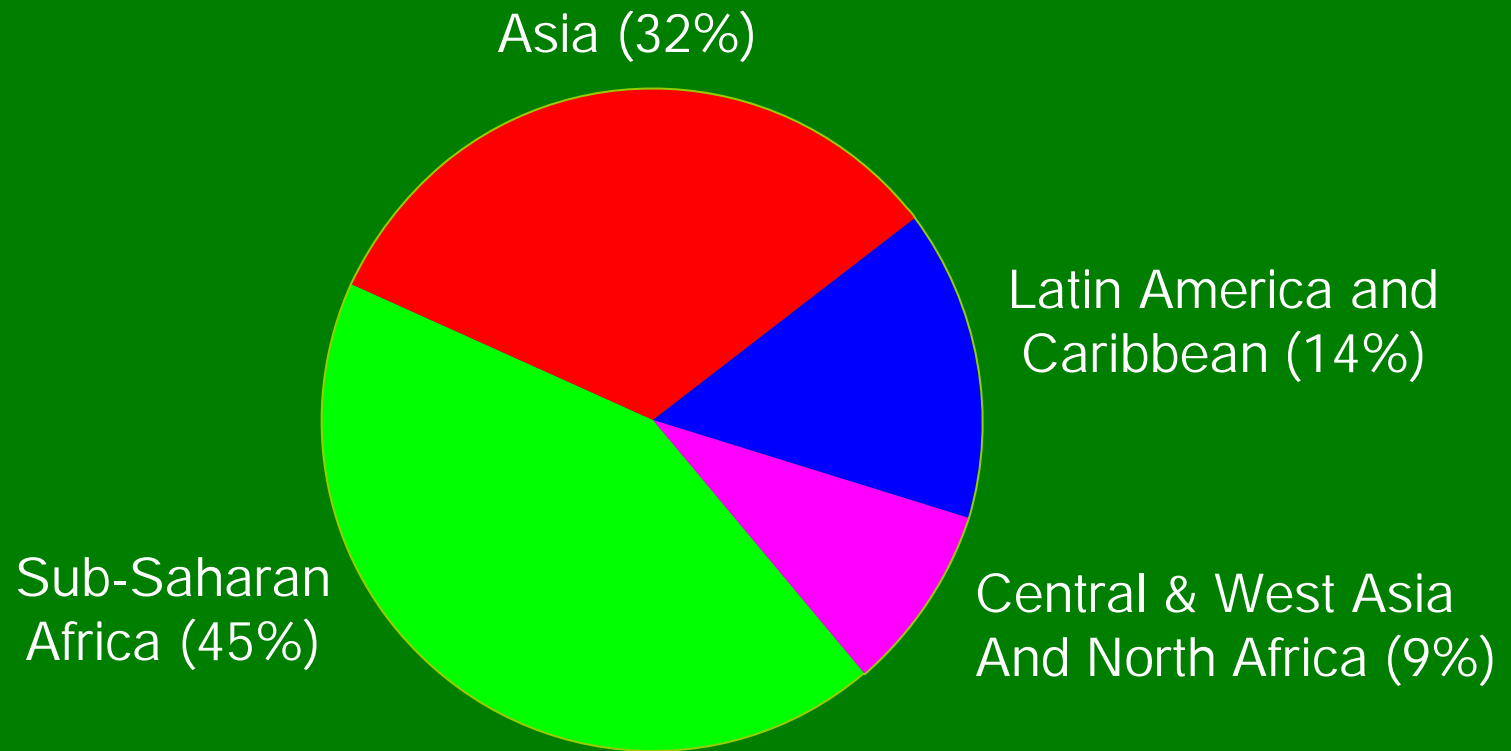


- Created in 1971
- 64 public and private members
  - 25 developing and 22 industrialized countries
- 4 Cosponsors (World Bank, FAO, IFAD, UNDP)
- 15 CGIAR Centers
- Partners in academia, civil society, private sector, and national ag. research institutions (North and South)
- 7,600 scientists and staff
- Total budget 2004: \$425 million

# The Global CGIAR



# CGIAR allocations by developing region



# Total investment and rising membership



# CGIAR produces knowledge, technologies, policy advice, and special services – global/international public goods

- For every dollar invested in CGIAR since 1971, \$9 worth of additional food has been produced
- Developing country capacity strengthening - 75,000 professionals

# China-CGIAR

- **Cooperation with Centers predates founding of CGIAR in 1971**
  - China formally joined CGIAR in 1984
- **Seven CGIAR Centers have regional offices in China, range of activities**
  - CIMMYT, CIP, IFPRI, ILRI, IPGRI, IRRI, IWMI
- **Over 50 Chinese institutions have collaborated with CGIAR Centers**
- **Over 3,400 Chinese scientists trained**

# China's Agriculture: Strengths and challenges

- Accomplishments in last decades are remarkable (production growth and structural changes)
- Among the world's largest producers of CGIAR mandated crops (rice, wheat, maize, roots and tubers)
  - China produces over 40% of the world's vegetables
- Strong public agricultural research system (>1K research institutes and 130K staff)

# China's Agriculture: Strengths and challenges

## Challenges:

- Domestic demand for food, feed and fiber will double in 50 years; urbanization
- Arable land lost at an annual rate of 2%. By 2050, current cultivation areas are expected to be reduced by 20%
- Competing uses of water
- More open markets, competitiveness (labor intensive, land intensive commodities, food security goals)
- Rural-urban income disparity
- S&T funding (from .5% Ag GDP to ?)
- Changes impacting Institutions (S-S, PPP, Bilateral, multilateral)

# CGIAR System: Examples of Chinese Leadership

- **Solid and expanding partnership with CGIAR Centers**
- **3 Chinese experts serve on Center Boards**
- **China was Member of Executive Council**
- **Cooperation in over 70 completed and ongoing projects**
- **Active in KM: China hosted over 40 international conferences and workshops**

# China-CGIAR Partnership: Looking to the future

- China's tremendous capacity in agriculture, S&T, development
  - Opportunities for scaling up and scaling out
- CGIAR as a platform for mobilizing science (for development) and resources (intellectual, scientific, and technical) – ongoing reform

# CGIAR Reform Program

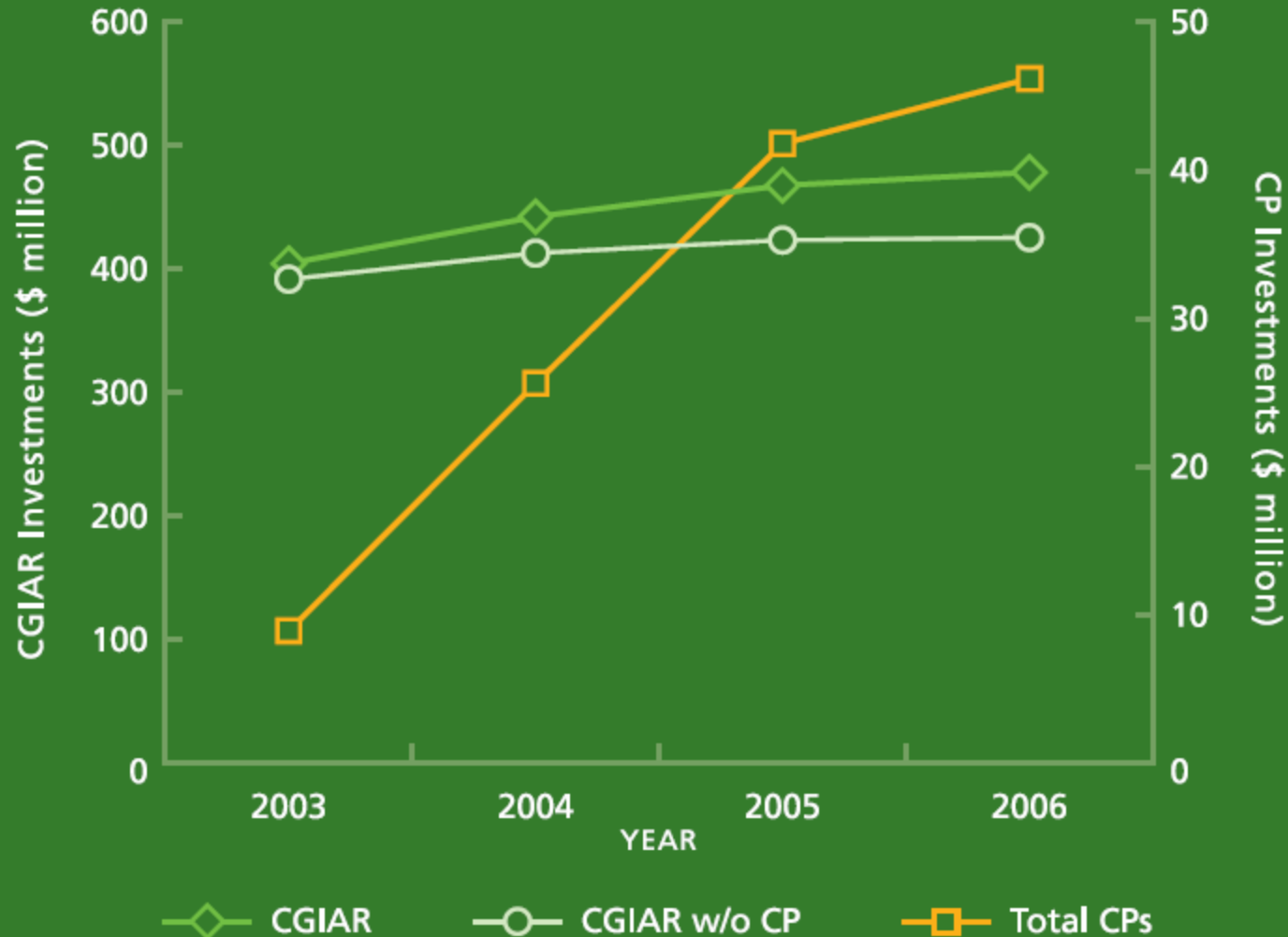
- Increased research impact through internal and external alliances
- Increased efficiency in policy formulation and decision-making
- Harnessing cutting edge science to help meet Millennium Development Goals
- Service provision in a more effective and efficient mode
- Increased programmatic and structural alignment

# Challenge Programs



- **“Water and Food”** for improving water productivity in agriculture in nine river basins, involving over 20 institutions ([www.waterforfood.org](http://www.waterforfood.org))
- **“HarvestPlus”** for breeding crops with improved micronutrient content in six staple crops involving over 40 institutions ([www.harvestplus.org](http://www.harvestplus.org))
- **“Generation”** for unlocking crop genetic diversity through the application of comparative biological knowledge in 11 crops in partnership with 14 institutions ([www.generationcp.org](http://www.generationcp.org))
- **“Securing the Future for Africa’s Children,”** developed by a CGIAR partner, the Forum for Agricultural Research in Africa (FARA) is focusing on jumpstarting agricultural development in Sub-Saharan Africa. ([www.fara-africa.org](http://www.fara-africa.org))

# Investment trends: CGIAR Challenge Programs



Source: David A. Raïtzer, 2003. *Benefit-cost meta analysis of investment in the International agricultural research Centres of the CGIAR*. FAO, Rome, p. xv.

# CGIAR priority areas

- **Biodiversity**
- **Genetic improvement**
- **Wealth creation/high value products**
- **Sustainable natural resource management**
- **Policies and institutions**

# Sustainable wealth creation through high-value products

- Productivity increases in fruits and vegetables
- Post-harvest value and employment creation
- Income increases from livestock in low and high productivity areas
- Enhanced incomes from fisheries and aquaculture
- Enhancing incomes from forests and trees

# Challenges in the future

- **Agricultural subsidies**
- **Fair trade**  
**(fair access to fair markets)**
- **Expanding access to global public goods**
- **Strengthening knowledge-sharing**

# ODA, Subsidies & Agriculture

Year	Total ODA <sup>1</sup>	Ag ODA <sup>1</sup>	Ag ODA/Total ODA (%)
1980	37.1	6.2	16.7
1985	40.0	6.6	16.6
1990	44.8	5.4	12.0
1995	38.9	3.0	7.6
2002	61.4	2.3	3.7
2003	78.2	2.93	3.74

<sup>1</sup> constant 2002 US\$ billion

Figures are defined as total ODA from all donors and to all recipients for category iia

Source: Official development assistance to agriculture, DFID 2004

## 2003

- Subsidies

- OECD US\$ 349 billion (920 times CGIAR)

Source: I.1 Estimates of support to agriculture, (PSE/CSE Database) OECD 2004

# Good News: Recognition of agriculture

- Johannesburg Summit
- World Food Summit
- Inter-Academy Panel
- Millennium Project on MDGs
- Commission for Africa
- UN Report, In larger freedom

# Agriculture in the future

- **Source of food, feed, fiber, health, wealth**
- **New opportunities (interfaces in S&T)**
  - Precision Agriculture
  - Biofuels
  - Resilient Agriculture
  - Carbon management
  - New institutional design
- **Creative research is critical to China and the CGIAR**

# Next steps

- Vision exercise to determine emerging priorities and future opportunities for China-CGIAR collaboration
- Strengthening and enhancing of high-payoff collaborative initiatives
- Mobilize Resources (intellectual, S&T and financial)
- China-CGIAR fellowship program