



ICID 61st International Executive Council Meeting

**Presentation by Chandra A. Madramootoo
President, ICID**



**October 15, 2010
Yogyakarta, Indonesia**



Current Drivers:

- The continuing food crisis and volatile food prices
- Climate variability – floods and droughts
- Competition from other water users
- Population growth
- Lack of water storage capacity
- Demands for energy and alternative fuels
- Changing dietary patterns
- Weak institutional capacity
- Lack of investments in agriculture and water
- Weakened applied research and technology transfer capabilities
- Environmental and water quality degradation

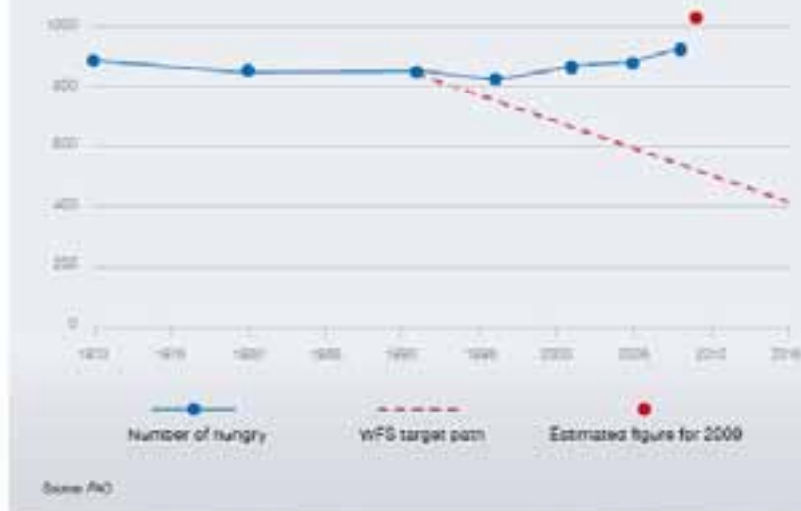
Forest fires in Russia



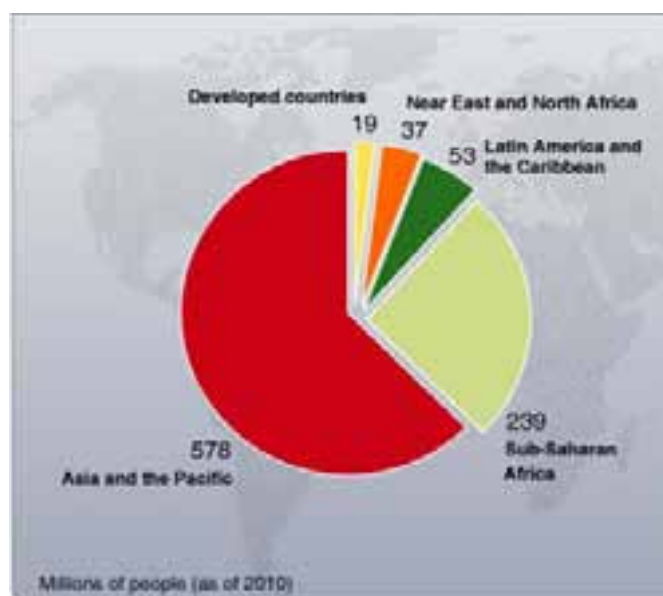
Floods in Pakistan



Figure 2: Number of hungry people in the world (in millions)



Global Food Crisis: 925 million people hungry in 2010



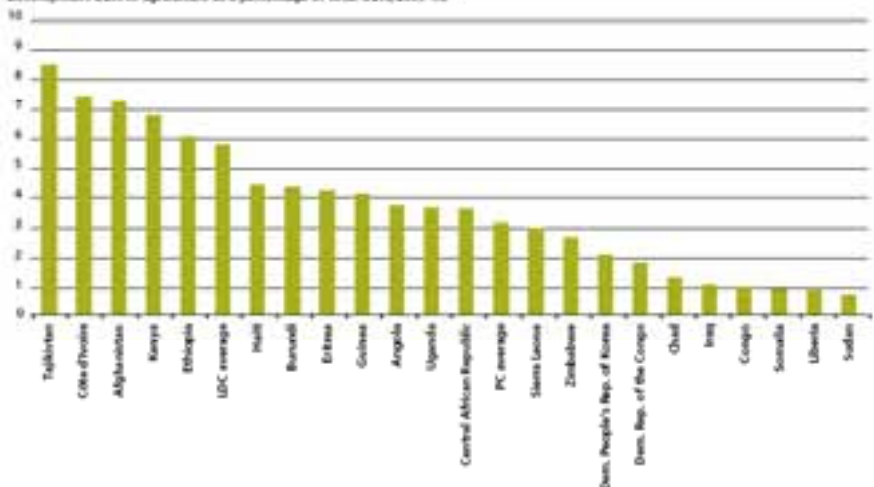
22 countries High and persistent hunger



- 166 million people
- 20% of all under-nourished people

Agriculture is vital to the economies of countries in protracted crisis, yet receives a small fraction of development ODA

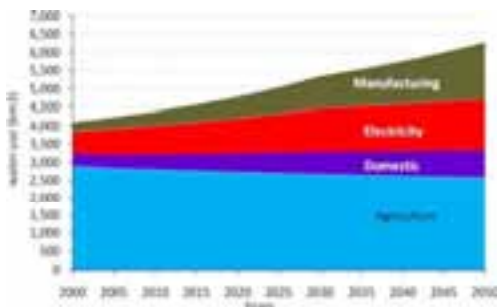
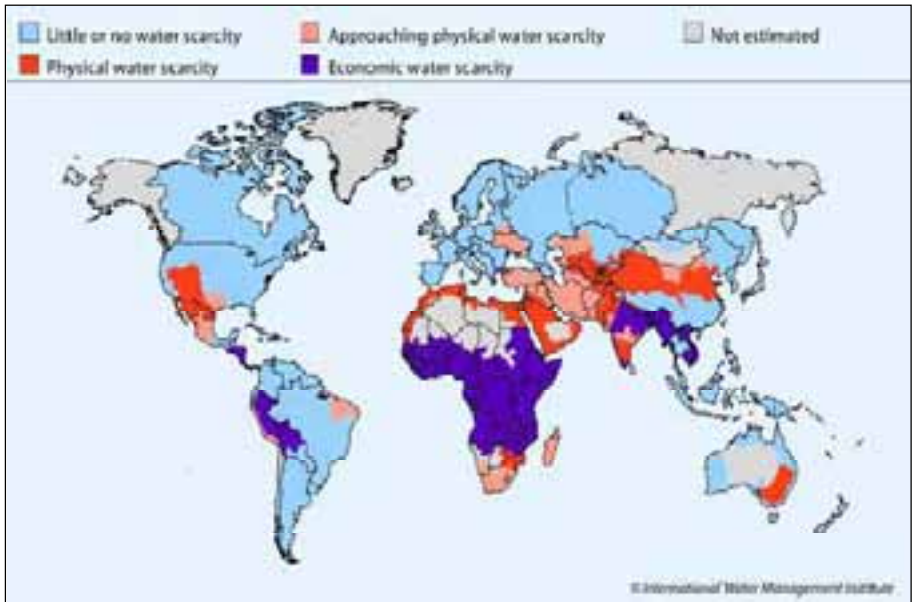
Development ODA to agriculture as a percentage of total ODA, 2005-08



(Note: PC = countries in protracted crisis; LDC = least-developed countries (excluding countries in protracted crisis))

Source: OECD-CRIS database.

Water Scarcity (Source IWMI, 2007)

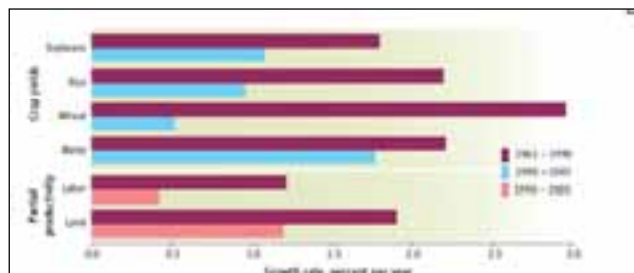


RIISING WATER DEMAND FROM OTHER SECTORS

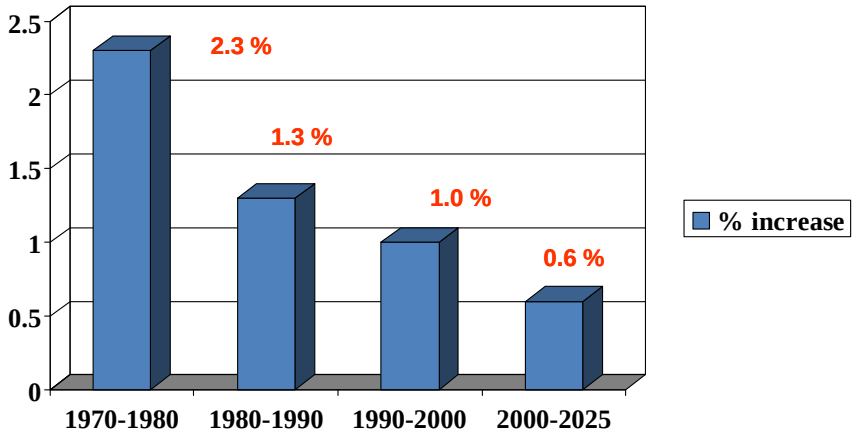
(Source: FAO 2009)

Limitations to crop growth

(Source: Alston et al. 2009, Science.)



IRRIGATION EXPANSION



**TECHNOLOGY GAPS REMAIN AND
CLIENT DEMAND CONTINUES**



UNDER-INVESTMENT IN R&D, TECH TRANSFER AND CAPACITY BUILDING



INSUFFICIENT NUMBER OF TRAINED PERSONNEL





WORLD BANK: 1990-1997

- modernization of irrigation systems,
- sustainable land and water use,
- widespread use of maintenance technology

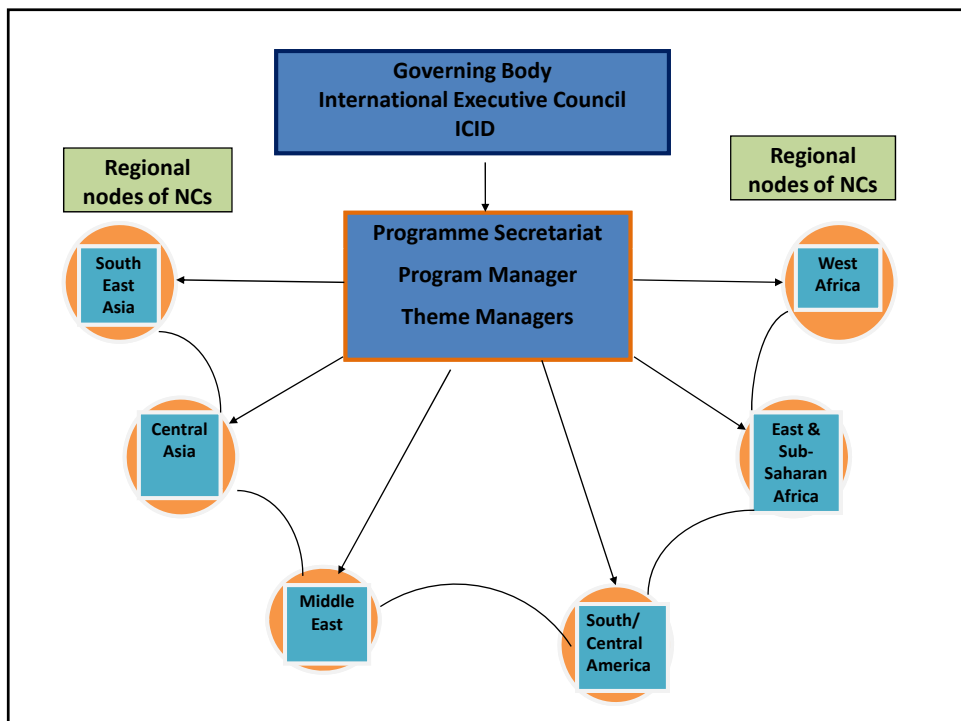


FAO: 1998-2008

- dissemination of knowledge
- capacity building

**INTENSIFYING TECH TRANSFER AND
TRAINING EFFORTS USING OUR NCs**





CROSS CUTTING THEMES



- Knowledge dissemination
- Capacity building – irrigators, technicians, private sector, public sector, colleges, universities

POTENTIAL RESEARCH THEMES

- Drought and water scarcity;
- Groundwater protection and management;
- Low quality waters and wastewater reuse for irrigation;
- Water harvesting and storage;
- Drainage, and waterlogging and salinity control;
- Lowlands development
- On- farm water management and water use efficiency;
- Energy and sedimentation control.



**Open consultative meeting
Wednesday October 13 –
together with FAO**



NEXT STEPS:

- ☐ FAO and ICID will issue a joint letter on termination of existing obligations at FAO and transfer of program ownership and governance to ICID
- ☐ ICID MB establish a small advisory committee to work with NCs to develop a work programme, functional support structures and research networks
- ☐ ICID to work with FAO and its convening power to seek project financing support

THANK YOU!



**Wheat statistics
millions of tonnes (FAO, 2007)**

Country	Production	Imports
India	73	3
China	102	2.5
Egypt	7.6	7.3
Indonesia	-	4.8
Brazil	3.8	7.0
Canada	24.3	-



**FOOD PRODUCTION
NEEDS TO DOUBLE
OVER THE NEXT 25
YEARS TO MEET
POPULATION DEMANDS**



**Can we manage and save water?
From point to complex
heterogeneous systems**



**Geospatial and computational
analysis**





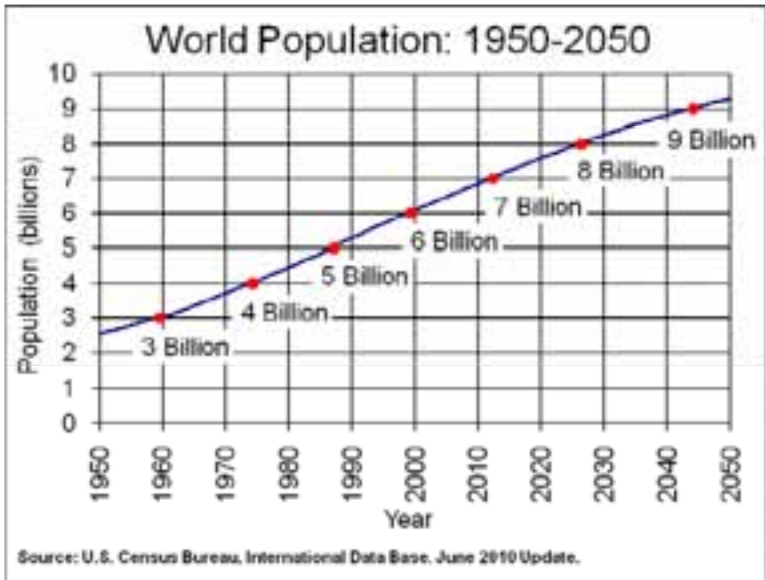
Water Management for Food Security
Chandra Madramootoo, President, ICID
Presentation to CNCID, May 9, 2010



**Rebuilding leadership in irrigation
and drainage research**



POPULATION GROWTH



September 24-26, 2008



TECHNOLOGY GAPS IN DEVELOPING COUNTRIES

