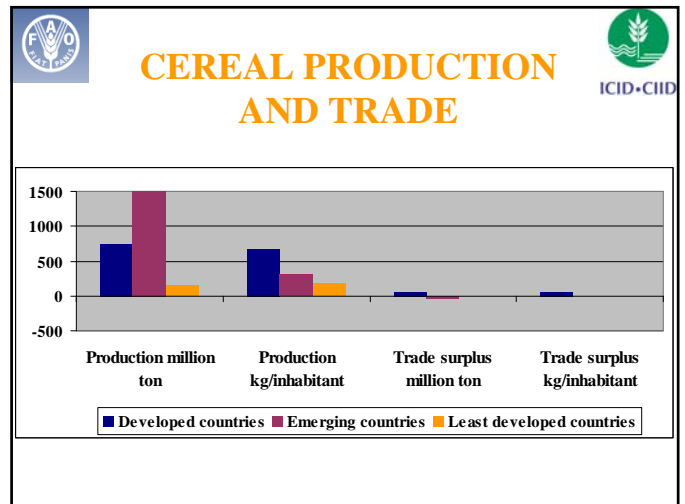
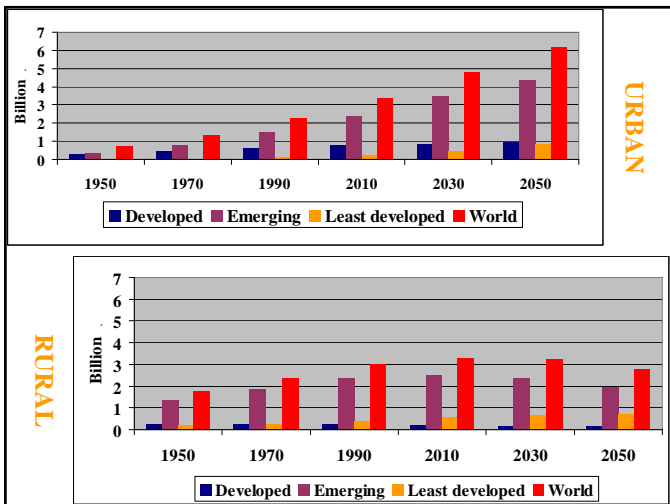
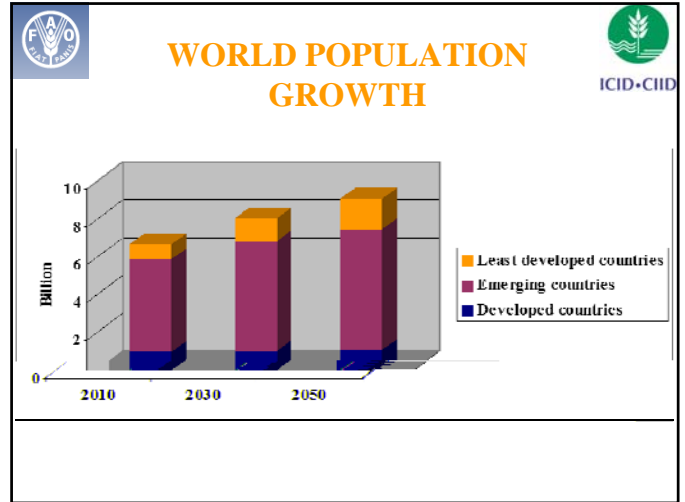







WATER MANAGEMENT CHALLENGES TO PRODUCE SUFFICIENT FOOD FOR AN URBANISING WORLD

Prof. Bart Schultz
Co-coordinator Theme 2.2

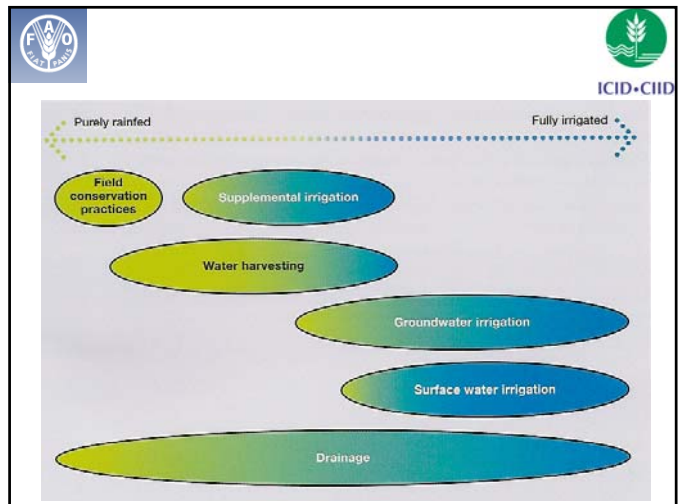
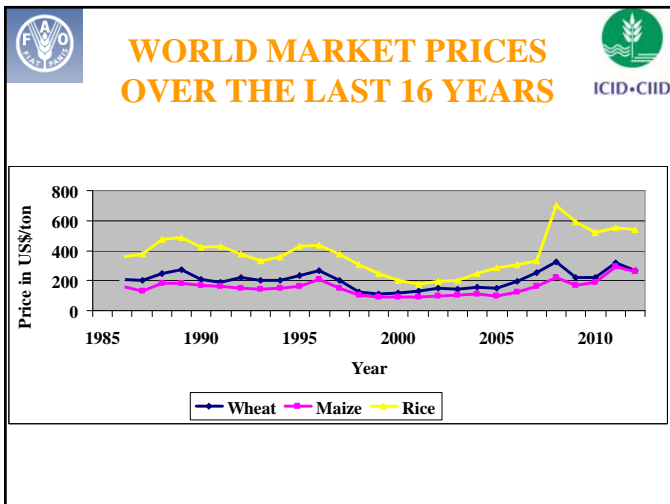


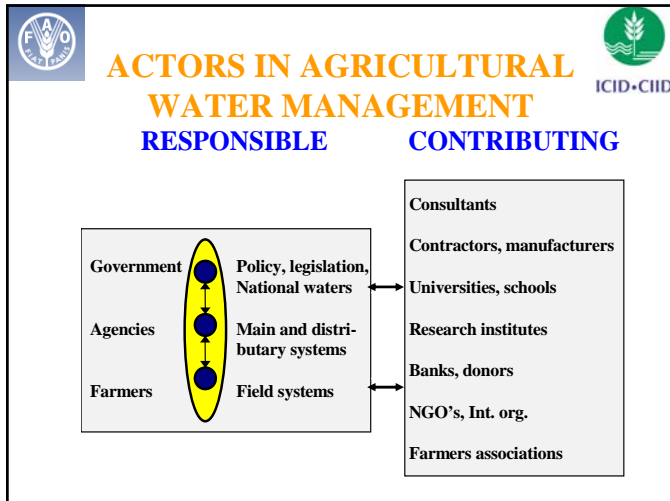
EXPECTATION

- duplication in food production in 25 – 30 years
- 80 - 90% from existing cultivated area
 - higher yield per ha, double or triple cropping
 - installation of irrigation and/or drainage systems in areas without a system
 - modernization of existing irrigation and drainage systems
 - installation of drainage in irrigated areas
 - installation of irrigation in rainfed areas with drainage
- 10 - 20% from land reclamation

INCREASE IN FARM SIZE
Food affordable for urban people

Istanbul 18 March H.Tardieu





- CHALLENGES IN THE TEMPERATE HUMID ZONE**
- relatively limited challenges
 - optimisation in water management and flood protection
 - control of pollution and implementation of an ecosystem approach

- CHALLENGES IN THE HUMID TROPICAL ZONE**
- produce sufficient food for increasing and urbanising population, with improving standards of living
 - increase in farm sizes or cultivation of special crops
 - improve water management – especially irrigation and drainage – in order to achieve higher yields per ha, double, or even triple cropping
 - optimise water use at river basin level among competing demands between sectors – water management, hydropower, drinking water supply - and among riparian States
 - cooperation in river basin planning

- CHALLENGES IN THE ARID AND SEMI-ARID ZONE**
- produce sufficient food for increasing and urbanising population, with improving standards of living
 - increase in sustainable irrigated agriculture and reuse of low quality water
 - improve water management – especially irrigation and drainage for groundwater table and salinity control – in order to achieve higher yields per ha
 - optimise water use at river basin level among sectors and among riparian States
 - reduce/prevent mining of groundwater resources
 - cooperation in river basin planning



SOME REMARKABLE POINTS



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- global food production enough to feed the World
- challenge: *duplication in 25 – 30 years*
- responsible: *governments, irrigation/drainage agencies, farmers*
- most undernourished people in India and China
These countries are food self sufficient
- improved and expanded water management is needed to cope with the challenges, especially in the emerging and least developed countries



IN CONCLUSION



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- it is possible to achieve the required food production now and in future
- water management will play an important role
- many parties were involved to prepare the documents and Sessions for our Theme and Targets
- we are having an interesting and inspiring Forum
- we intend to continue after the Forum to achieve the objectives as outlined in the Action Plans



Thank you
for your attention