



GLOBAL EVENT

JOHANNESBURG SOUTH AFRICA



SHOWCASING RESULTS AND DEMONSTRATING IMPACT

Subject 2 - Methods and Tools: Lessons learned in measuring agricultural innovation and its impacts

Food security, irrigation and the SDGs

Dr. Chris Dickens

International Water Management Institute



agriculture,
forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



ARC • LNR
Institute for Agricultural Research and Development



GLOBAL CONFERENCE ON
AGRICULTURAL RESEARCH
FOR DEVELOPMENT



CGIAR



GFAR

Food security, irrigation and the SDGs

SDG Target	Indicator
2.1 end hunger and ensure access by all people, in particular..... to safe, nutritious and sufficient food all year round.	Prevalence of population with moderate or severe food insecurity, based on the Food Insecurity Experience Scale (FIES)
2.3.1 double the agricultural productivity and incomes of small-scale food producers...	Value of production per labour unit by classes of farming/pastoral/forestry enterprise size
2.4.1 ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.	Percentage of agricultural area under sustainable agricultural practices
2.4.2	Percentage of agricultural households using irrigation systems compared to all agricultural households

SDG Target	Indicator
6.4.1 change in water use efficiency over time	This indicator is defined as the output over time of a given major sector per volume of (net) water withdrawn
6.4.2 level of water stress: freshwater withdrawal in percentage of available freshwater resources	Ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, taking into account environmental water requirements.
8.4.1 global resource efficiency in consumption and production and ... to decouple economic growth from environmental degradation	Resource productivity
12.2 achieve the sustainable management and efficient use of natural resources	Material footprint (MF) and MF/capita
12.3 halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	Global Food Loss Index (GFLI)