

Food Production to Meet the Global Needs of 2050 – The Challenges for Land and Water Resources: An Overview

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Key words: Hydrography; Land management; Professional practice; Remote sensing; Spatial planning; Water demand and supply; global food production; Application of technology; water use efficiency

SUMMARY

The Paper provides an overview of the demands on the land and water resource to meet global food production needs in 2050 as a consequence of the estimated growth in population and perceived changes in societal behaviour over the next 35 years. It provides an introduction to the principal issues which require to be addressed, the particular demands for water in producing the food we eat and some of the innovative, technological and management solutions which seek to achieve sustainable outcomes. The Paper is an introduction to this Theme within Commission 8's Work Plan 2015-2018, which will explore options for reducing waste; growing more water efficient crops; using the water used to grow crops, more efficiently; using modern technology to increase yields and examine opportunities for creating more freshwater resource. The concluding papers in the series will examine the implications of climate change on the water cycle and its potential impact on food production.

The subsequent two papers in this session provide detail on the application of remote sensing technology and the application of data in agriculture for the efficient use of the scarce water resource.

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(8246)

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FIG Working Week 2016

Recovery from Disaster

Christchurch, New Zealand, May 2–6, 2016