

Colloque sur l'irrigation en horticulture
Et si l'irrigation nous était « comptée »...

Le jeudi 25 novembre 2010



Innovation dans la gestion de l'eau d'irrigation pour une meilleure sécurité alimentaire*

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* *Résumé en anglais*



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Note : Ce résumé a été présenté lors de l'évènement et a été publié dans le cahier du participant.



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**En raison du délai insuffisant de sa réception, le CRAAQ n'a pas été en mesure de faire réaliser la traduction de ce résumé.*

SOMMAIRE

The fragility of the world's food production systems is evident, and the critical importance of irrigation and water resources to world food security must be recognized at international and national levels, and across all sectors.

Food security remains a major global developmental challenge, and is worsening with the global economic outlook. The numbers of malnourished people increased by over 100 million since the start of the food crisis in 2008, and the total number of people with insufficient food exceeds one billion. One-fifth of the world's population live in areas of water scarcity, and where human capacity and financial resources are insufficient to access adequate clean water and water supply for food production. Agricultural and food production accounts for 70% of fresh water withdrawals, and irrigation in many countries have been able to help achieve food security or at least meet a significant portion of their food demands. Nevertheless, some 800 million people live in the arid and semi-arid tropics with little access to water.

Based on climate change predictions, the situation is likely to get worse, where greater variability of rainfall and more droughts in arid areas are expected. Those areas suffering from poverty and hunger are often the same as those that lack adequate water and sanitation. Water management is required not only for food production, but to also improve quality of life through better access to water and sanitation, hygiene, food and adequate nutrition.

During the 1960s and 1970s food production kept pace with demand as more cropland was irrigated and yields of irrigated crops increased dramatically. Irrigation played a critical role in combating hunger, poverty and death due to malnutrition. However, the environmental and social consequences of large irrigation schemes came into question, and investments in irrigation subsequently diminished. Today's food crisis is compounded by a rapidly growing world population, the conversion of food producing lands to bio-fuel production, diminishing available freshwater supplies, competition for water by other sectors, climate change impacts, and the reduction in arable lands due to urbanization.

Urban areas, natural aquatic ecosystems and industry all compete with irrigated agriculture for water. Groundwater levels and surface water supplies are already severely reduced in some regions of the world, and climate change may further exacerbate water supply. Pollution and rising salinity levels also contribute to reduced water availability. Managing water systems at the basin or watershed level over the long term, and through the cooperation of all sectors will reduce user conflict and make optimum use of the available water.

A rapid research agenda needs to be constructed that will develop and customize accessible technologies to increase land and water productivity. Improving irrigation efficiencies to convey water to the plant roots more effectively and reducing runoff, and improving crop yields per cubic meter of water consumed are essential areas of research.

It is critical that financial investments focus on increasing agricultural production through improved management of land and water resources, and the involvement of all stakeholders. Vast areas of cropland are rainfed and improvements to plant, soil and water management in many regions would stimulate economic investments and reduce poverty.

The International Commission on Irrigation and Drainage (ICID) has taken leadership on the development of best management practices such as salinity and water logging control through drainage, water table management, and irrigation modernization in order to conserve water, protect water quality, and enhance environmental sustainability of water management in agriculture.