



Water management to cope with and adapt to climate variability and change.

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In many parts of the world, variability in climatic conditions is already resulting in major impacts. These impacts are wide ranging and the link to water management problems is obvious and profound.

The know-how and the available information undoubtedly indicate that climate change will lead to an intensification of the global hydrological cycle and can have major impacts on regional water resources, affecting both ground and surface water supply for sectorial water uses and, in particular, the irrigation field imposing notable negative effects on food security and poverty alleviation programs in most arid and semi-arid developing countries.

At the United Nations Millennium Summit, in September 2000, world leaders adopted the Millennium Development Declaration. From this declaration, the IWRM was recognised as the key concept the water sector should be using for water related development and measures and, hence, for achieving the water related MDG's. However, the potential impacts of climate change and increasing climate variability are not sufficiently addressed in the IWRM plans. Indeed, only a very limited IWRM national plans have been prepared, coping with climate variability and changes.

This is mainly due to the lack of operational instruments to deal with climate change and climate variability issues. This is particularly true in developing countries where the financial, human and ecological impacts are potentially greatest and where water resources may be already highly stressed, but the capacity to cope and adapt is weakest. Climate change has now brought realities including mainly rising temperatures and increasing frequency of floods and droughts that present new challenges to be addressed by the IWRM practice. There are already several regional and international initiatives underway that focus on various aspects of water resources management those to be linked with climate changes and vulnerability issues.

This is the way where the water resources management and climate scientist communities are engaged in a process for building confidence and understanding, identifying options and defining the water resources management strategies which to cope with impacts of climate variability and change.