International Water Law and Climate Disruption Adaptation

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1 Introduction

Climate change or disruption (CD)3 stresses the future use of water in arid and humid areas of the world. In many river basins, historic surface flows are likely to decline at the same time that severe flood events become more frequent.4 Arid areas are especially vulnerable; population growth, contamination and less surface runoff threaten to create serious water stresses, including the accelerated depletion of aquifers.5 CD requires that water managers abandon the assumption of a stationary world and accept that water availability projection must assume a non-stationary one.6

Water stress has also been identified as a water security issue with implications far beyond the borders of the countries that will be immediately

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impacted.7 World food and energy supplies may be disrupted; developing countries could experience food production declines of 10–25%.8 The water management choices necessary to adapt to global change9 may disproportionally impact indigenous peoples, the poor and the environment, exacerbating social and political tensions.

CD response strategies include mitigation and adaptation. Mitigation attempts to stabilize the climate by rolling back greenhouse gas emissions. Adaptation either reduces ‘an area’s vulnerability to the negative impacts of climate change’ or enhances ‘its ability to capture any benefits’.10 Adaptation proceeds based on two assumptions: The first ‘real politik’ assumption is that serious mitigation will not occur. Greenhouse gas emissions will continue to rise during this century, even though the rate of emissions is slowing, as less coal is burned to generate electricity.11 The failure of the international community to agree on a ‘real’ mitigation regime reinforces the need for a ‘real politik’ strategy.

The second ‘leap of faith’ assumption argues that mitigation strategies will be eventually implemented, but the benefits will not kick in for at least a century and possibly a millennium. For the foreseeable future water managers have no choice but to take the CD risk scenarios as a given and ask how those