

Interreg
CENTRAL EUROPE



CWC

European Union
European Regional
Development Fund

TAKING
COOPERATION
FORWARD

 Torino, 7/5/2020

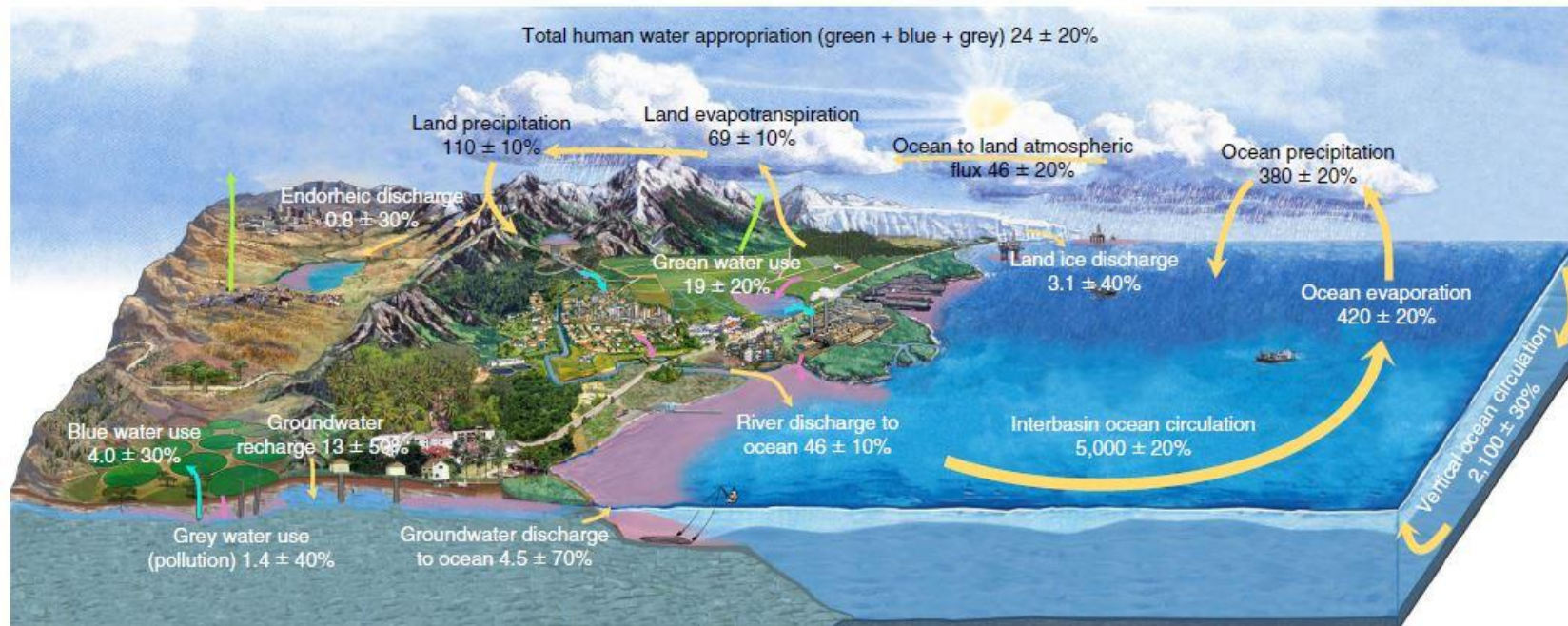
 **Introduzione alla gestione sostenibile delle acque**

 PhD Ing. Anacleto Rizzo, IRIDRA SRL

CICLO ACQUA: IDROLOGIA



CICLO ACQUA: IDROLOGIA



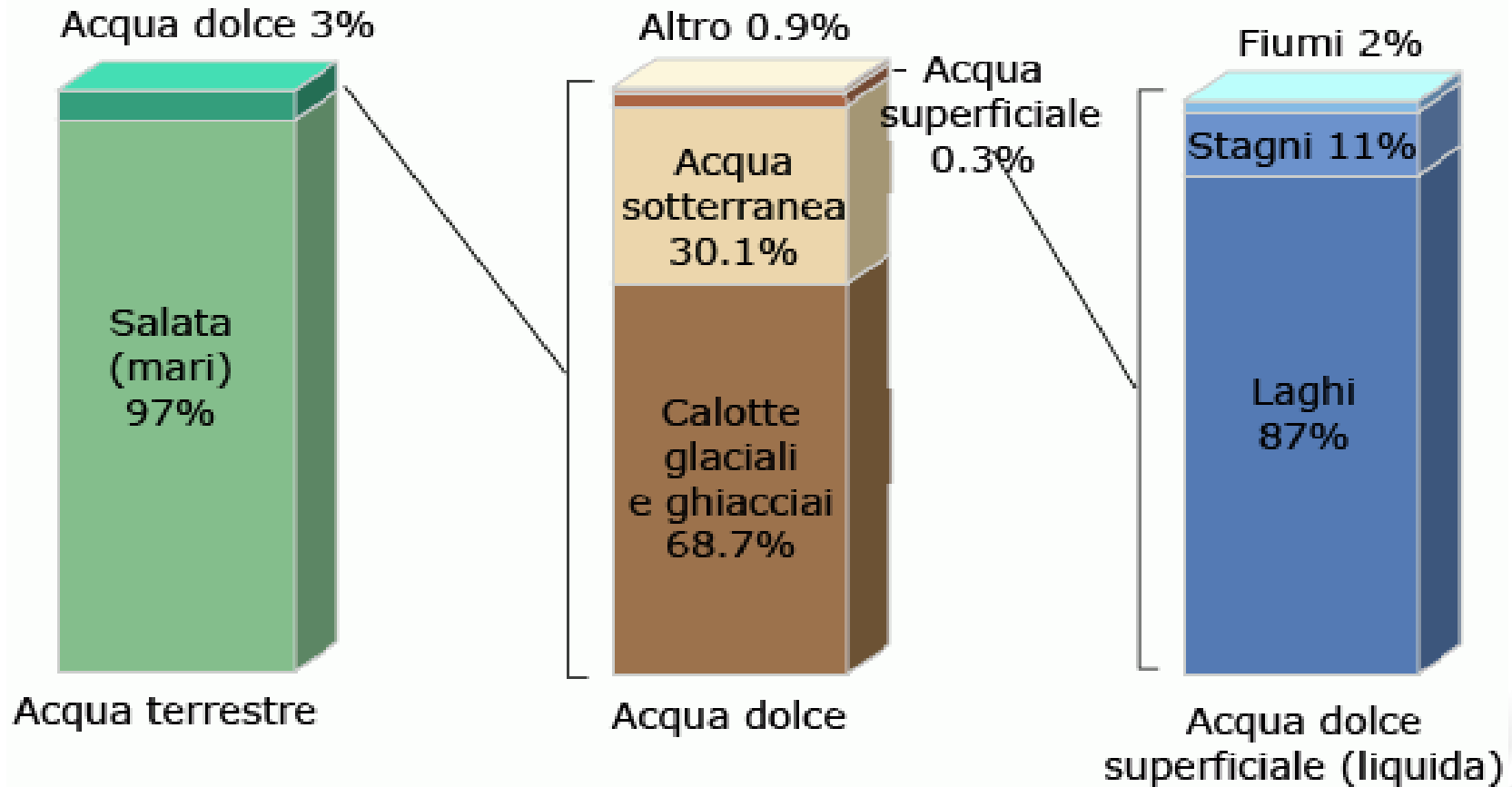
nature geoscience ARTICLES
<https://doi.org/10.1038/s41561-019-0374-y>

Human domination of the global water cycle absent from depictions and perceptions

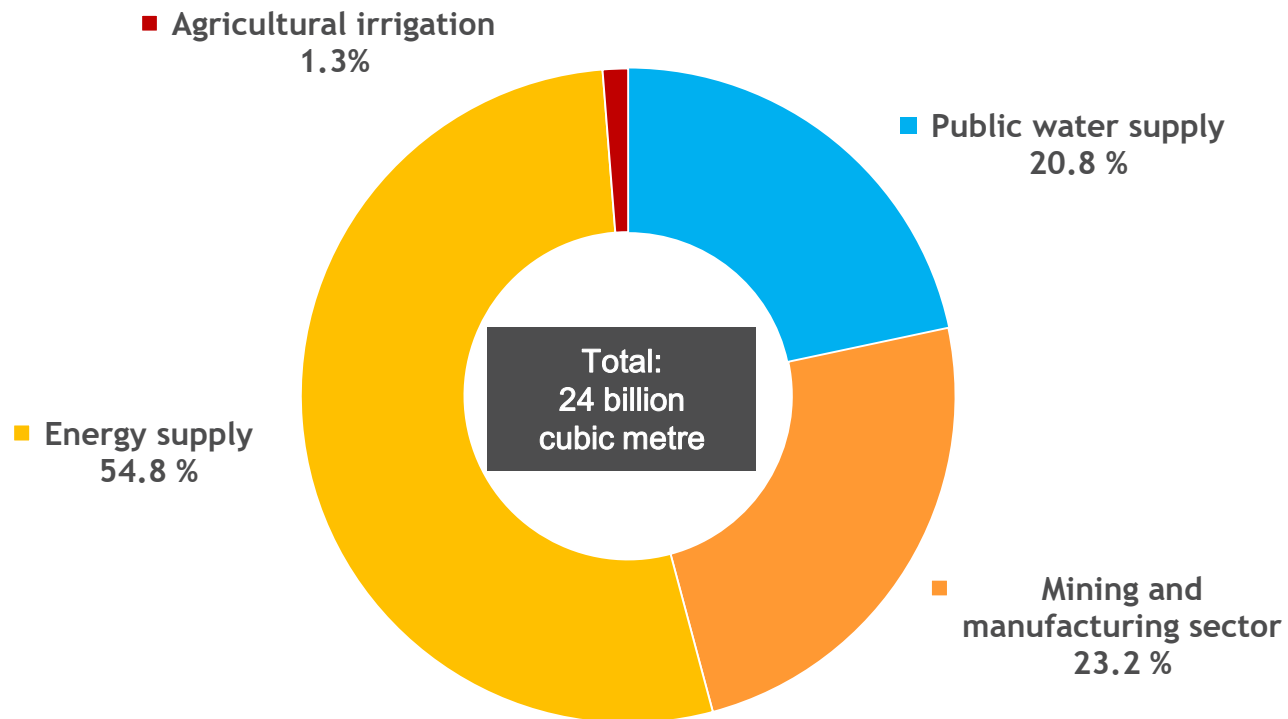
Benjamin W. Abbott^{1*}, Kevin Bishop², Jay P. Zarnetske³, Camille Minaudo^{4,5}, F. S. Chapin III⁶, Stefan Krause⁷, David M. Hannah⁷, Lafe Conner⁸, David Ellison^{9,10}, Sarah E. Godsey¹¹, Stephen Plont^{3,12}, Jean Marçais^{13,14}, Tamara Kolbe^{2,15}, Amanda Huebner¹, Rebecca J. Frei¹, Tyler Hampton^{3,16}, Sen Gu¹⁴, Madeline Buhman¹, Sayedah Sara Sayedi¹, Ovidiu Ursache¹⁷, Melissa Chapin⁶, Kathryn D. Henderson¹⁸ and Gilles Pinay¹⁹



Distribuzione dell'acqua globale



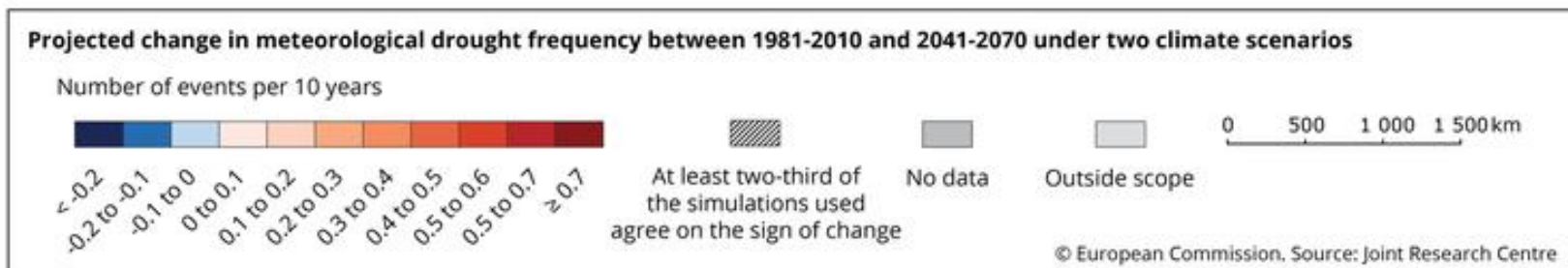
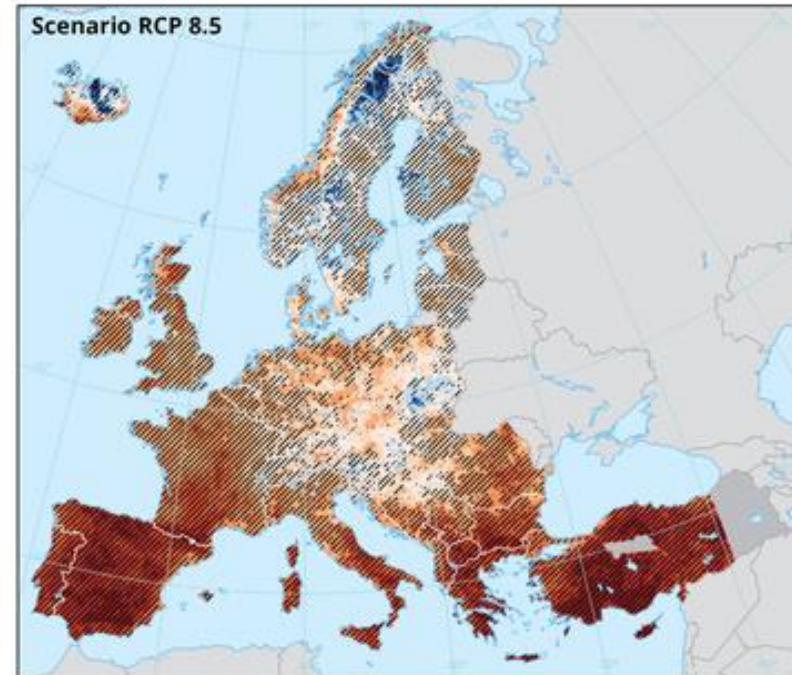
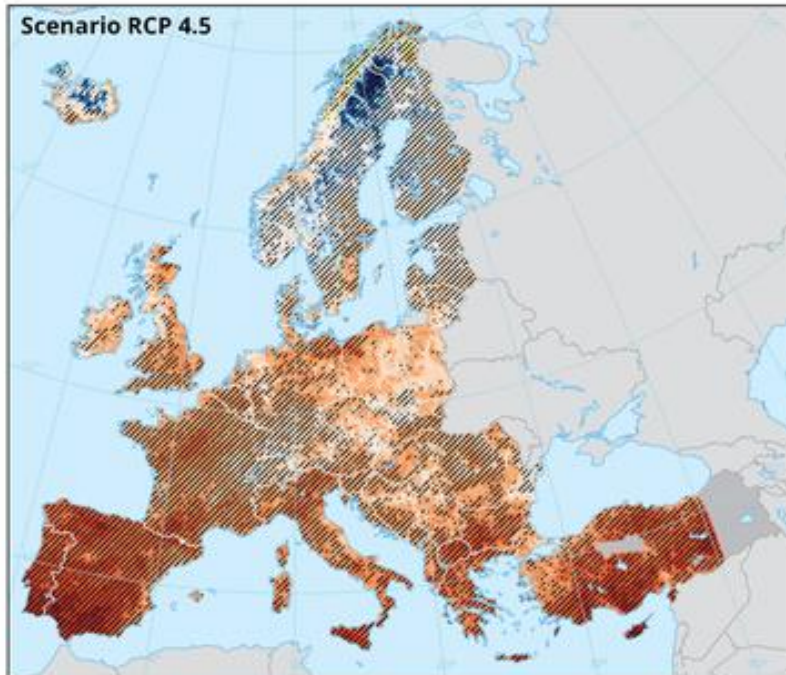
Estrazione d'acqua nei diversi settori in Germania (2016)



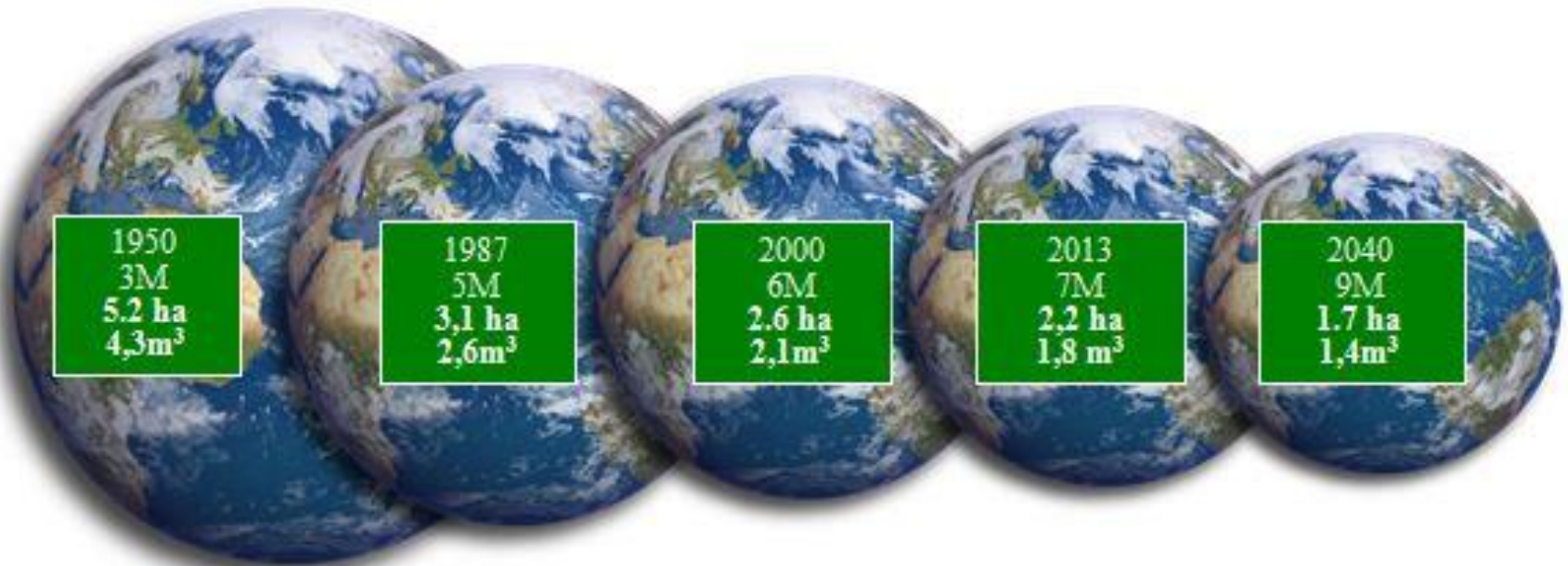
(Source: German Federal Statistical Office. Fachserie 19, R. 2.1.1 & 2.2, Wiesbaden, for several years)



PREVISIONI FUTURE: SICCITA'



PREVISIONI FUTURE: RISORSE



PREVISIONI FUTURE: ACQUA E PACE

Water and Security: Pressure Points to Watch in 2016



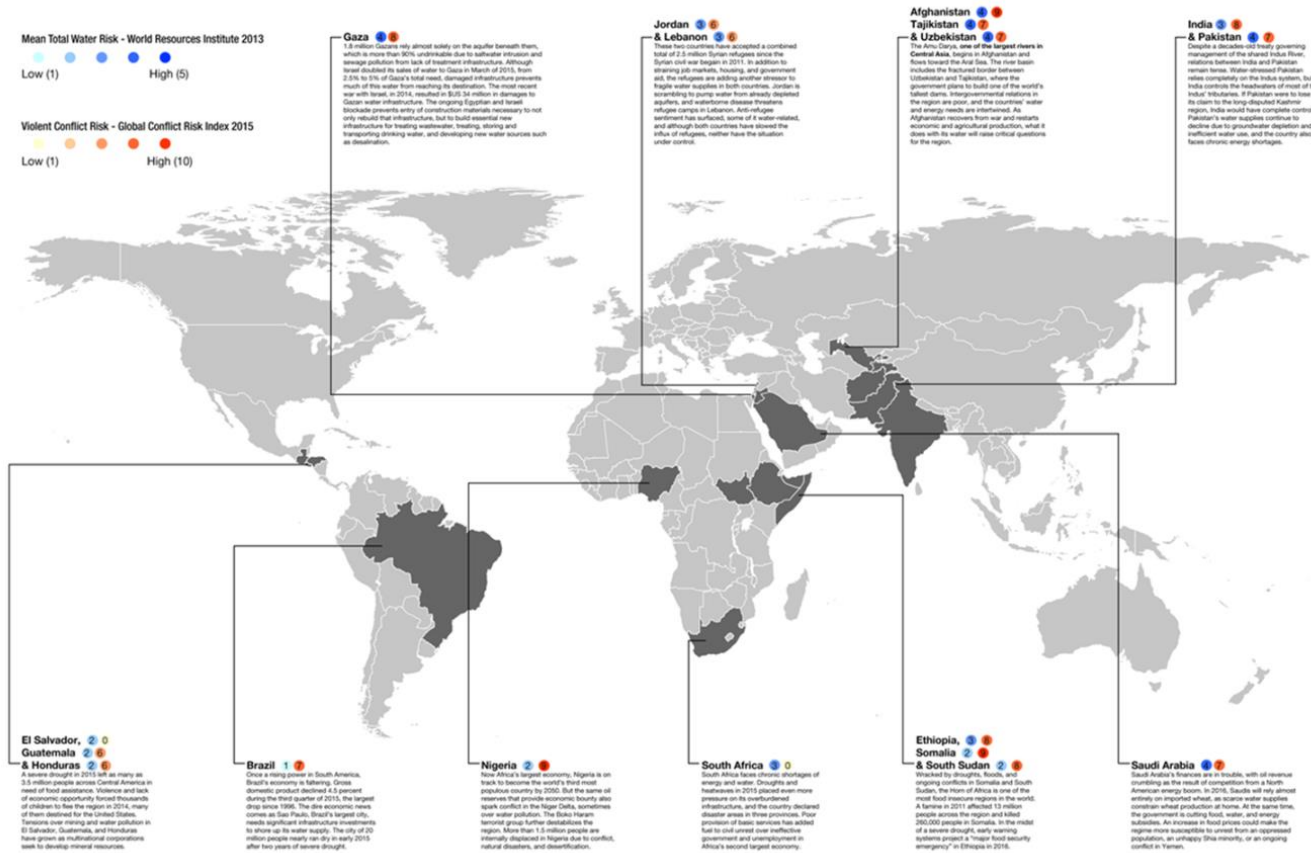
Around the world, climate change, population growth, and industrial development are together disrupting familiar patterns of water availability. Droughts and floods are becoming more frequent and extreme. Clean water supplies are becoming scarcer. Competition for water is growing. While outright conflict over water is rare, these water stressors can join with social and political triggers to destabilize already vulnerable regions. The result can be major food shortages, forced migration, or, in extreme cases like Syria, devastating war. Combining data from water and conflict indices with an analysis of geopolitical factors, Circle of Blue identified 10 places where water could play a role in developing or exacerbating humanitarian crises.

Mean Total Water Risk - World Resources Institute 2013

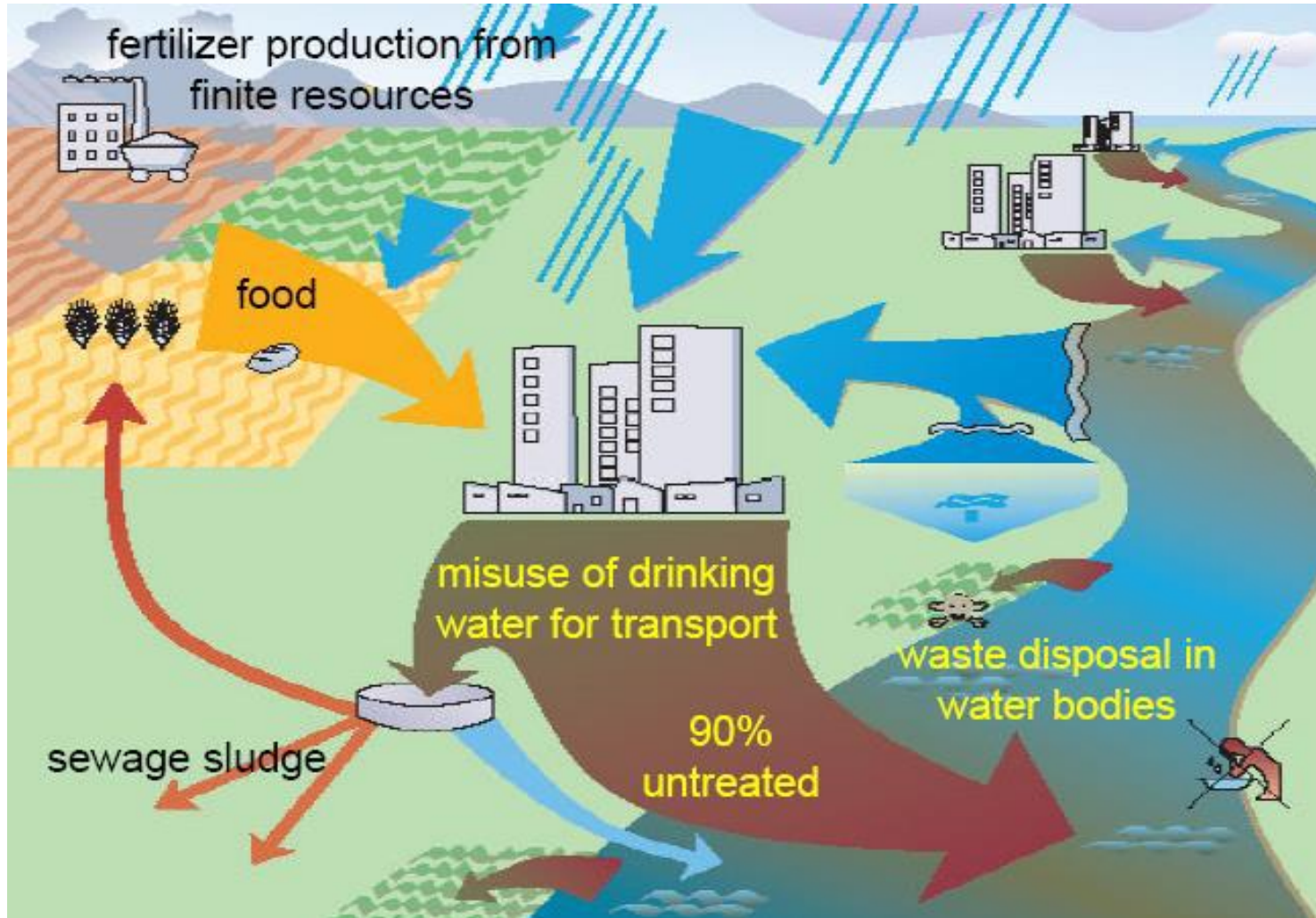
Low (1) High (5)

Violent Conflict Risk - Global Conflict Risk Index 2015

Low (1) High (10)



GESTIONE DELLE ACQUE CONVENZIONALE



- Risparmio idrico e riduzione delle perdite
- Raccolta e gestione sostenibile delle acque di pioggia
- Riutilizzo delle acque reflue e dei nutrienti per
ribilanciare i cicli idrici e biogeochimici naturali



GESTIONE SOSTENIBILE DELLE ACQUE



Approccio multidisciplinare





Anacleto Rizzo

R&D Design: Constructed Wetlands,
Sustainable water management,
Sustainable drainage systems
(SuDS), River restoration

IRIDRA SRL

Soluzioni naturali (NBS Nature-Based Solutions) e Gestione sostenibile delle acque

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