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HELP

Hydrology for the Environment, Life and Policy

A trans-disciplinary initiative to solve real problems in real catchments

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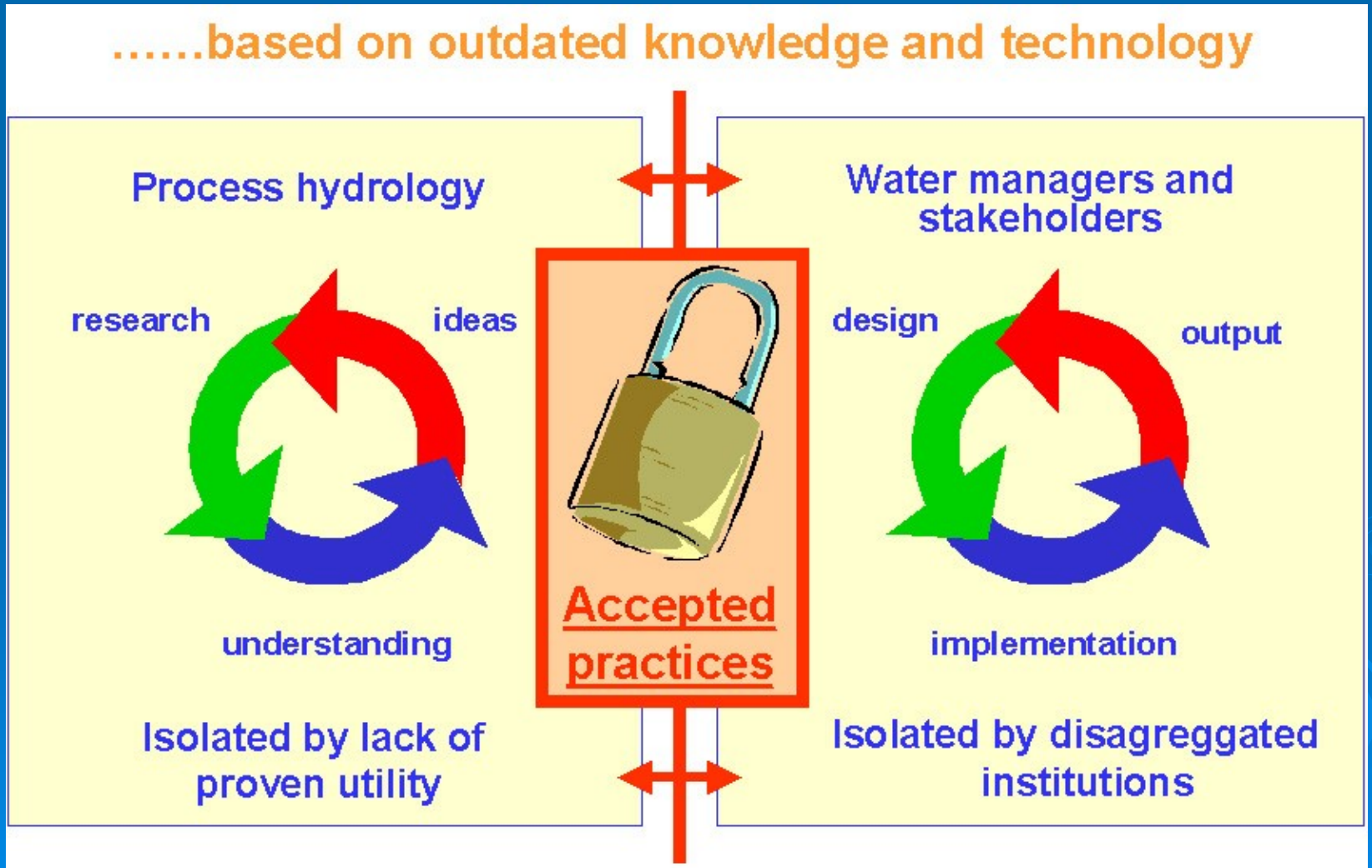
“Paradigm Lock”



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HELP

Hydrology for the Environment, Life and Policy

To deliver social, economic and environmental benefit to stakeholders through sustainable and appropriate use of water by directing hydrological science towards improved integrated catchment management basins

http://www.unesco.org/water/ihp/help

Real people | Real catchments | Real answers

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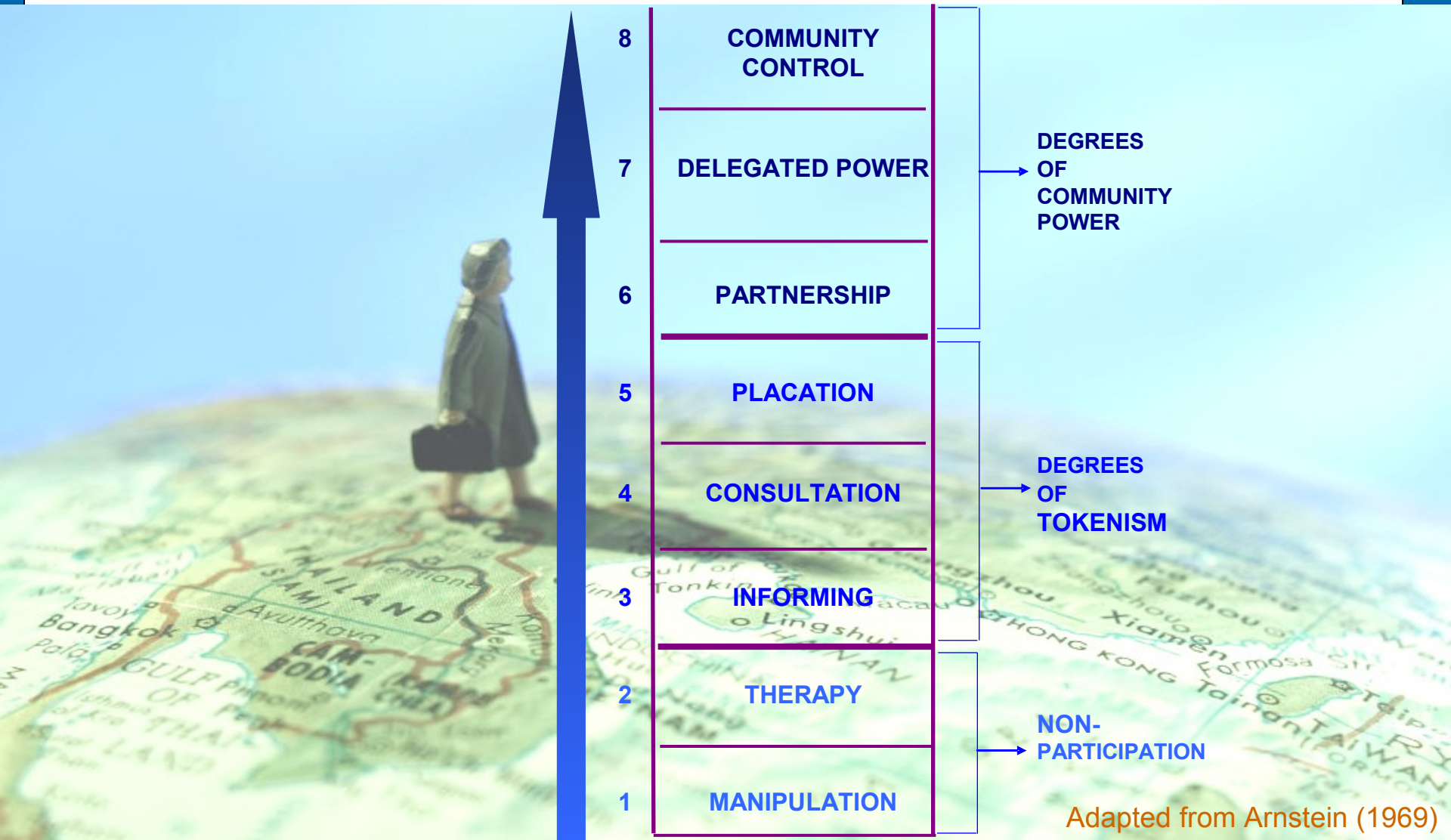
Achieving True Stakeholder Participation



Adapted from Arnstein (1969)

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IHP VI → IHP VII

HELP is an integral cross cutting activity of the UNESCO International Hydrological Programme

Theme 1 (T1)	*Adapting to the impacts of global changes on river basins and aquifer systems*
Theme 2 (T2)	*Integrated Watershed and Aquifer Dynamics*
Theme 3 (T3)	*Land Habitat Hydrology*
Theme 4 (T4)	*Water and Society*
Theme 5 (T5)	*Water Education and Training*

Theme 1 (T1)	*Global Changes and Water Resources*
Theme 2 (T2)	*Strengthening Water Governance for Sustainability*
Theme 3 (T3)	*Ecohydrology for Sustainability*
Theme 4 (T4)	*Water and Life Support Systems*
Theme 5 (T5)	*Water Education for Sustainable Development*

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Breaking the vicious cycle in integrated project management

Stage 0: Stakeholder consultation & participation

Stage 1: Understanding issues

Stage 2: Action plan

Stage 3:Long term monitoring and research

Stage 4: Modelling & scenario development

Stage 5: Development Decision Support Systems

Stage 6: Soft recommendations
Identification of new research needs

From Carmen de Jong with Peter Herbertson

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The HELP Process

- A comprehensive assessment of what we know now (physical, socio-economic, legal, cultural baseline information). Iteration between stakeholders and scientists to determine research plan.

- Implementation of research in collaboration between scientists, managers and stakeholders.

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What makes HELP unique?

- Only international programme that is a catchment based activity which is interfacing scientific research with stakeholders needs.
- Includes scientists, stakeholders, policy-makers, lawyers.
- Provides options as against imposing solutions.
- Providing/testing/implementing and improving solutions.
- Sharing experiences across a global network of basins.

(Davao HELP Basin)

(Meeting in Kodgiball village, Western Ghats. India)

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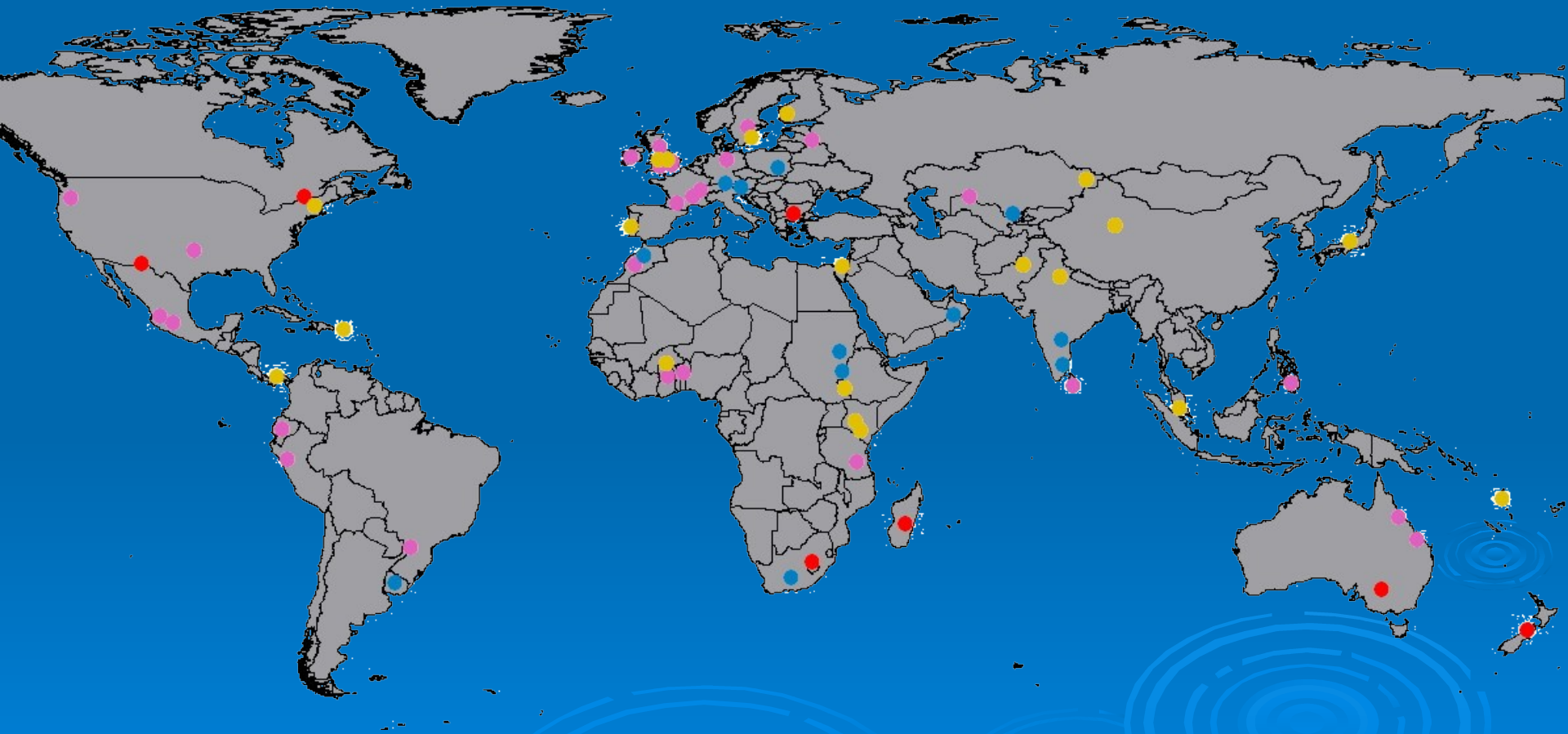
HELP GLOBAL NETWORK



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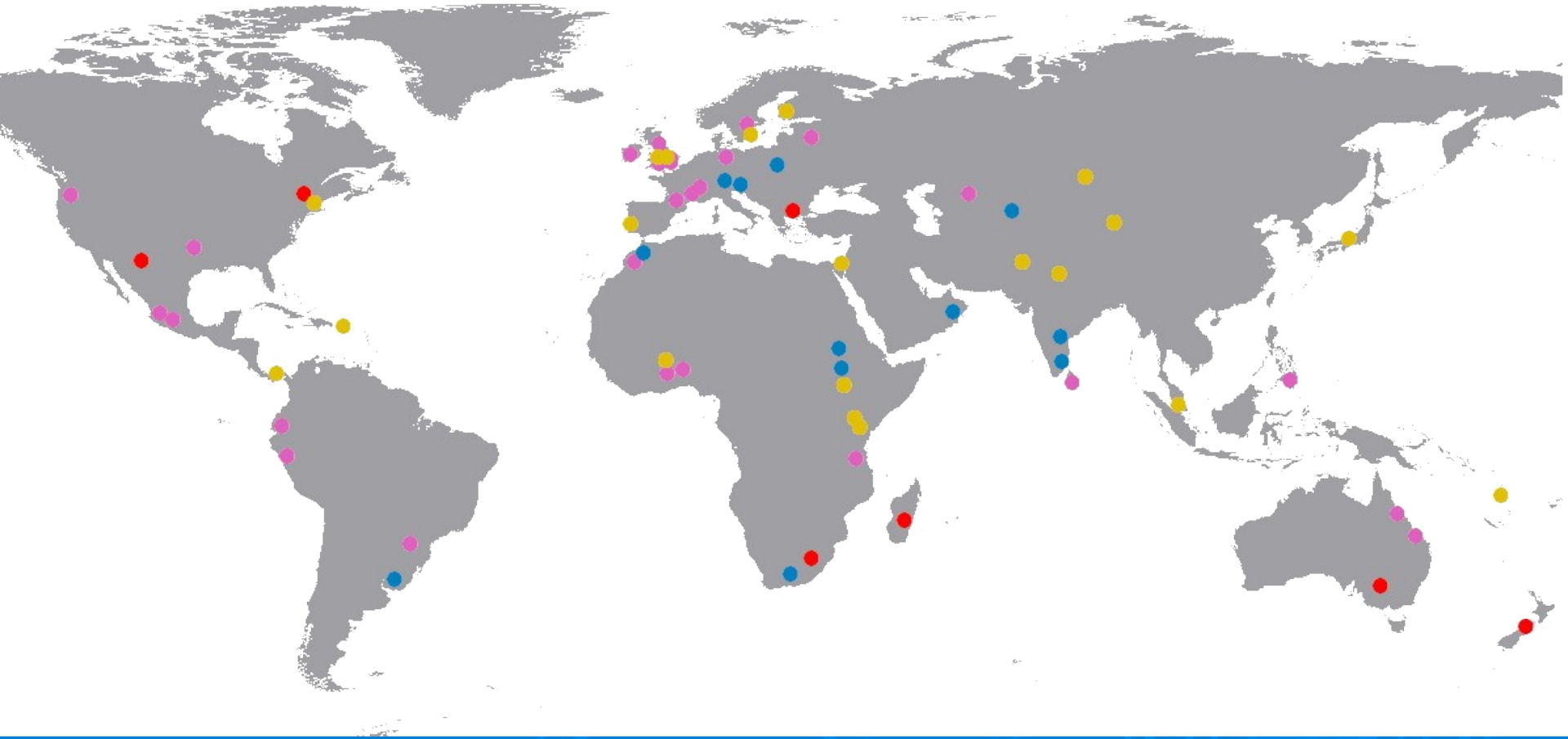
HELP GLOBAL NETWORK



- Demonstration
- Evolving
- Operational
- Proposed

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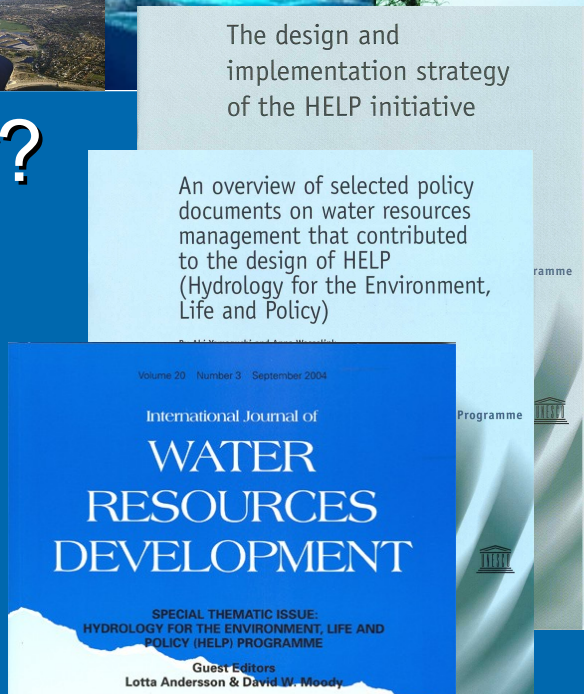
What has been achieved so far?

Publications:

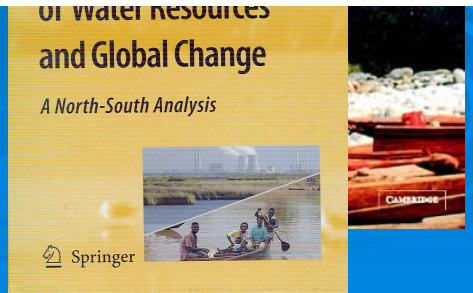
- HELP design and implementation strategy, 2001
- UNESCO IHP Series Technical Documents in Hydrology (38) 2000. An overview of selected policy documents on water resources management that contributed to the design of HELP.
- Article in AWRA journal, 2003



Available on website http://www.wrc.org.za
ISSN 0378-4738 = Water SA Vol. 34 No. 4 (Special HELP edition) 2008
ISSN 1816-7950 = Water SA (on-line)

and future potential."

- Integrated Assessment of Water Resources and Global Change *A North South Analysis*



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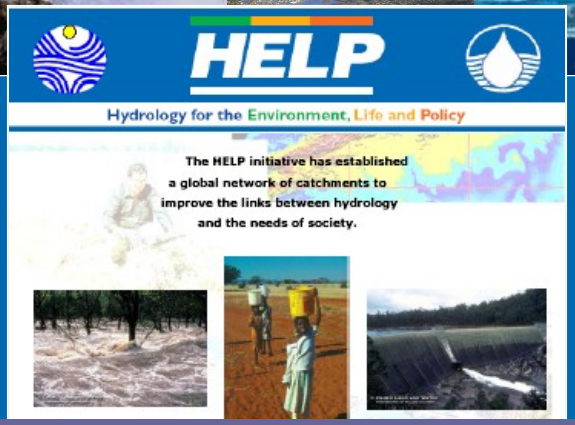
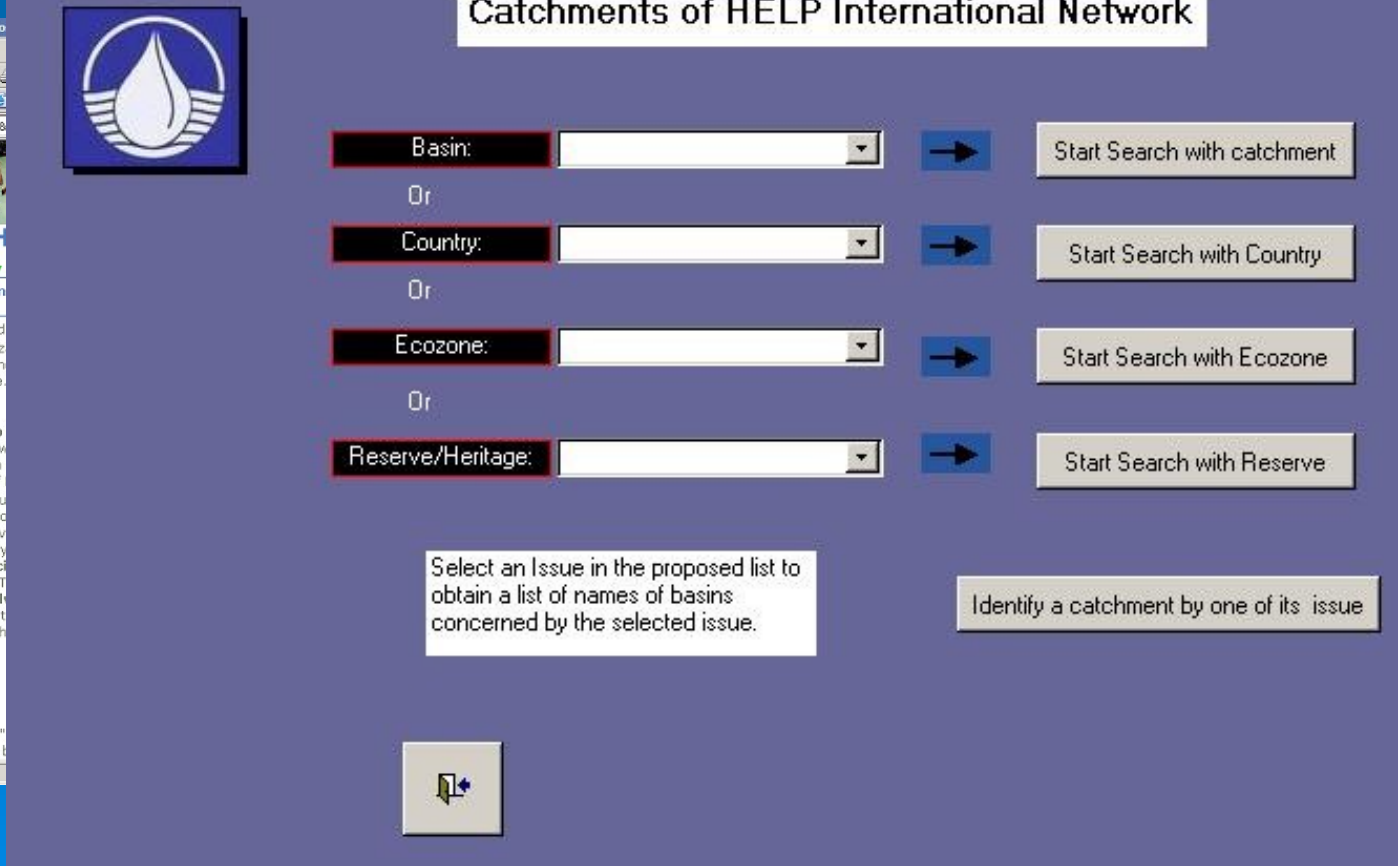
Communication:

- **Website**
- **Brochures**
- **Newsletters**
- **Database**





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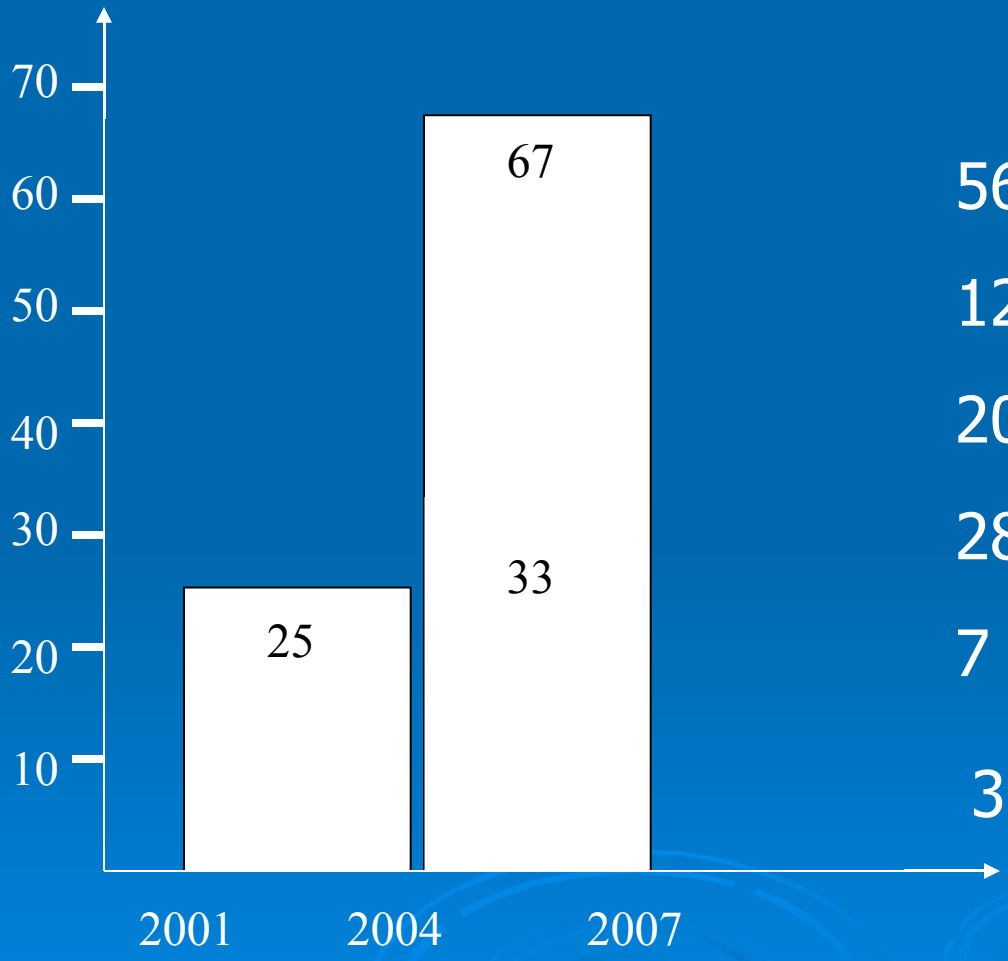
Evolution of the HELP Network



56 Countries

12 Proposed (2)

20 Evolving (10)

28 Operational (15)

7 Demonstration (6)

33 « active » basins

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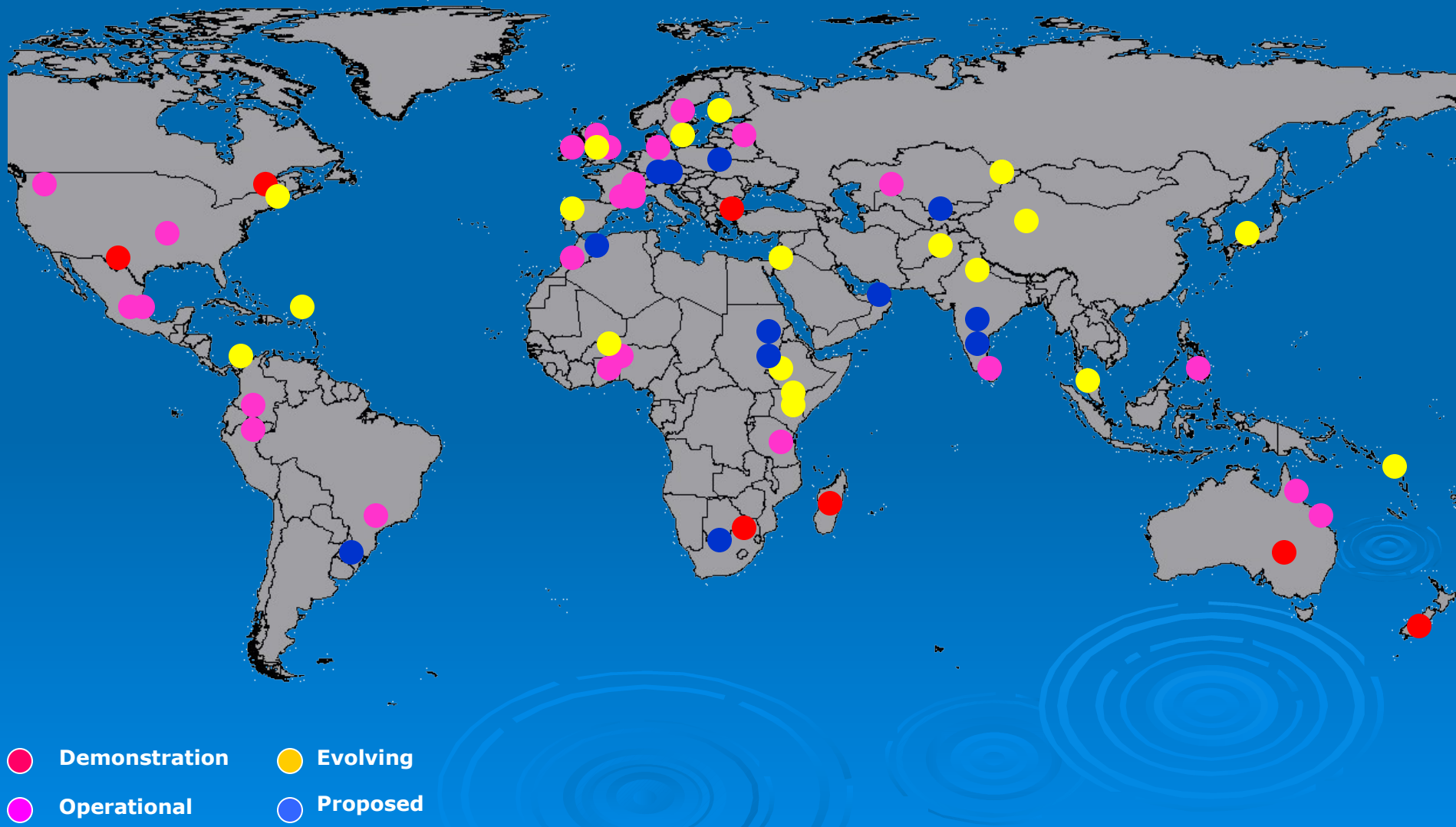
HELP GLOBAL NETWORK



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Countries	HELP basins	MAB Reserves	World Heritage Sites
Australia	Murrumbidgee	Kulkyne	Willandra Lakes
Australia	Burdekin		Wet Tropics of Queensland
Bulgaria/Greece	Nestos/Mesta	Alibotouch	Pirin Mountain
Canada/USA	Lake Champlain	Champlain	
France	Rhone	Camargue	
Germany	Saale	Flusslandschaft Elbe	
Ghana	White Volta	Vota, Greater Accra, C and W Regions	
Kenya	Ewazo Ng'Iro	Mt Kenya	Mt Kenya
Morocco	Draa	Arganeraie	
Oman	Barka		Arabian Oryx Sanctuary
Panama	Panama		Portobelo-San Lorenzo
Puerto Rico	Luquillo Mt	Luquillo	
Russia	Irtysh		Altai Mountains
Sri Lanka	Walawe		Sinharaja Forest
Uruguay	Tacuarembo	Banados del Este	
USA	Willamette	HJ Andrews	

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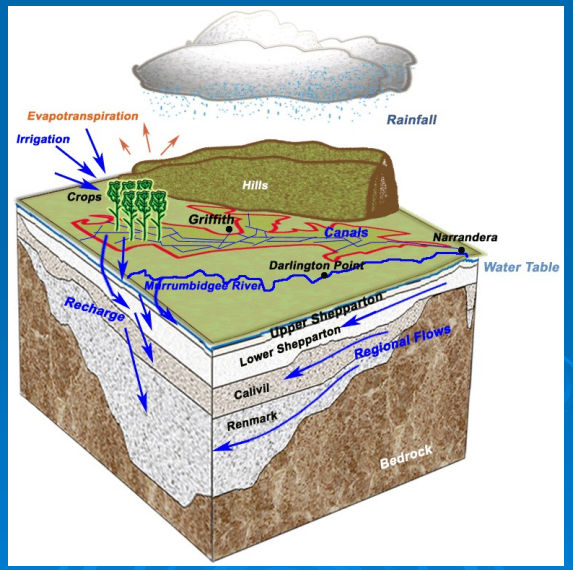
Where are we heading? Integrated Sciences

The need for a paradigm shift in scientific research to support land-water management issues leads to a series of Workshops.

- To complement research continuing on strict disciplinary lines we need to take a more cross-disciplinary, **more integrated approach** with a strong focus on lateral fluxes, (quantity and quality) where the IHP has a lot of experience.
- *"Carry on going vertically but also think laterally"*



(Murrumbidgee HELP basin Conceptual model)

Note: The systematic areas of surface water, groundwater and ecohydrological components of the IHP will contribute to HELP in the field.

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The next meetings:

- HELP Trans-boundary Challenge. October 2008. Greece
- HELP Review. October 2008. Tucson
- HELP Evaluation and Thematic Leadership Mtg . early 2009.
- Controls of transitional climate and land cover regimes on flow paths and hydrological extremes. mid 2009. Ecuador
- The relative roles of climatic variability and land cover change on floods and low flows as a function of scale. mid 2010

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Where are we heading? Selected Challenges for HELP

Overarching Question:

- **How do we implement HELP across the spectrum of socio-economic and socio-cultural contexts ?**

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Where are we heading? Selected Challenges for HELP

- **How do we dialogue with stakeholders ?**

(Murrumbidgee HELP Basin, Australia)

(Thukela HELP Basin, South Africa)

HELP will establish an Expert Group, 2006-2007, on Stakeholder dialogue including the use of experience from HELP basins.

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Where are we heading? Selected Challenges for HELP

- **How do we interface the water law and policy and science ?**

"The last frontier"

Photo : C. Blumberg

A new UNESCO Water Center entitled

An International IHP-HELP Centre for Water law, Policy and Sciences, at the University of Dundee, UK, under the auspices of UNESCO;

was opened in July 2006

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Where are we heading? Selected Challenges for HELP

- **How do we undertake the necessary scientific research where basin scientific infrastructure is lacking ?**

Western Ghats, India

We have established a joint IHP-HELP-IAHS(PUB)-FRIEND technical liaison group, 1st meeting, Oregon State University, November 2005

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Where are we heading? Selected Challenges for HELP

- **How do we develop criteria to better define "vulnerable" basins to global change (sensitivity to climatic variability and hydrological impacts of land use change)?**

(Murrumbidgee HELP Basin, Australia)

This question is being addressed by both the Vienna Expert Group and the joint IHP-HELP-IAHS(PUB)-FRIEND

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Where are we heading? Selected Challenges for HELP

- **How do we address upstream-downstream issues within IWRM from both a technical, management and policy perspective?**

From CESAP

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Where are we heading? Selected Challenges for HELP

- **How do we address scientific gaps within the Water and Food and Energy policy issue ?**

Source: unesco

8 HELP basins are nested within the IWMI Challenge Program on Water and Food

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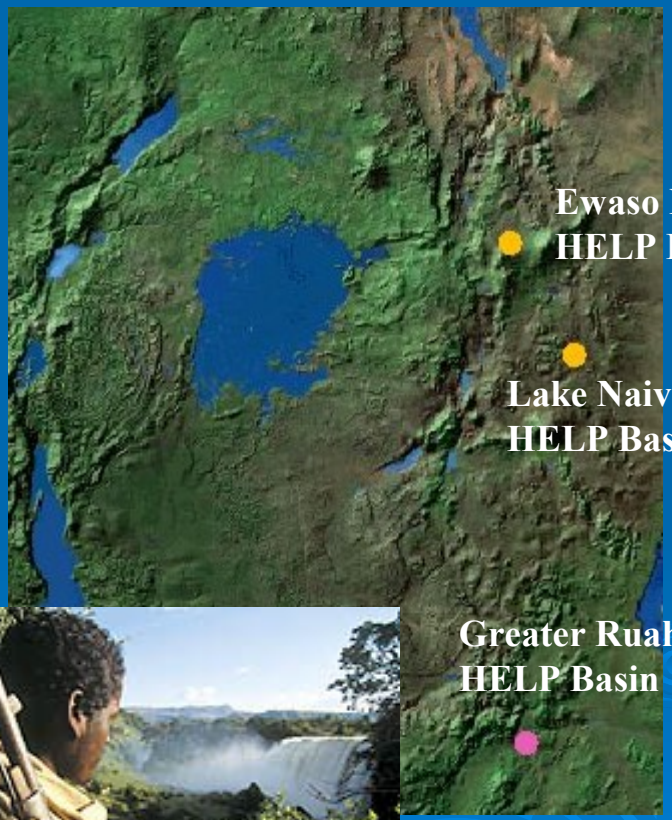
Where are we heading? Selected Challenges for HELP

- **How can we use the HELP approach to address national and transboundary basins policy issues connected with intra and inter basin conflicts connected with surface water and groundwater? (surface water-groundwater should not be treated as separate disciplines, they are connected!)**



Source: unesco

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Global HELP Call for Phase III (2009-2013) December 2008

Expressions of Interests for Basins
&
Thematic Leadership

Further Info:

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http://www.unesco.org/water/ihp/help