**The Water Cycle and Water Insecurity Research**

What is the global hydrological cycle? How is it a closed system?

What is the hydrological cycle driven by?

What is the importance and size of the water stores?

What is the importance of annual fluxes between atmosphere, ocean and land?

What is the global water budget? How does the global water budget limit availability?

How are some water stores non-renewable?

What are the inputs, flows and outputs in the hydrological cycle and how are they linked?

How do physical factors within drainage basins affect inputs, flows and outputs?

How do humans disrupt the drainage basin cycle?

How are water budgets influenced by climate type?

What do river regimes indicate? How do they contrast? (Yukon, Amazon, Indus etc.)

What influences hydrograph shape? What are the physical and human factors?

What are the causes of drought (short and longer term)?

How does human activity contribute to the risk of drought?

How does drought impact ecosystem function?

What are the meteorological causes of flooding?

How can human actions exacerbate flood risk?

What are the environmental and socio-economic impacts of flooding?

How does climate change affect the hydrological cycle?

How are stores and flows affected by climate change?

How does climate change and global warming increase uncertainty in the system and how does this affect security of water supplies?

How is supply and demand for water changing? What is the global pattern of water stress and scarcity?

What are the causes of water insecurity (physical and human)?

What demands are putting stress of finite water resources? Why is this increasingly serious in some locations?

What are the causes and pattern of global water scarcity and economic scarcity? Why does the price of water vary globally?

Why is water supply important for economic development, human wellbeing, the environment and economic problems?

What is the potential for conflicts over water sources and supplies?

What are the pros and cons of the techno-fix of hard engineering schemes?

What are some of the more sustainable schemes for water supply and conservation?

How do integrated drainage basin management and water sharing treaties and frameworks work and where?