



## International Summer School

### “Integrated River Basin Management”

Beijing, China

With Field Trips to North China Plain and Heihe River Basin

10<sup>th</sup>-20<sup>th</sup> July 2010

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Sponsored by Research Councils UK  
Co-sponsored by National Natural Science Foundation of China  
Organized by Centre for Water Research, Peking University, and  
Catchment Science Centre, University of Sheffield

### Introduction

Sustainable development requires a balance to be found between the competing demands made of freshwater, recognising that streams, rivers, lakes and groundwater require sufficient water of good quality if they are to continue to provide essential ecosystem services. The condition of the water environment is intimately linked to the way catchments (watersheds) are managed, with agricultural practices, flood control, urban areas, water supply and waste water disposal all have direct effects. It is essential that an integrated approach is taken to these linked pressures on land and water, hence the discipline of integrated river basin management is becoming increasingly important.

Achieving sustainability through integrated river basin management will involve fundamental changes in the fields of river management and the supporting research. As we move towards the vision of river catchments as integrated social-ecological systems that are interconnected, the implications of management interventions in any one area will need to be considered more holistically. This change will require different ways of thinking, managing and responding to those which have been in vogue over the past 20 years. A stronger emphasis on science to support a more transparent decision-making process will be needed as well as a more participatory, adaptive management approach.

### Programme

This advanced summer school will consist of presentations, workshops and field visits, facilitated by senior researchers from the UK and China. The two-week event will deepen delegates' understanding of the science and policy issues surrounding integrated river basin management, and create an international network of researchers. The objectives are to:

- Investigate theories and principles of integrated river basin management.
- Explore critical policy issues and the underlying science.
- Investigate the available and developing tools.
- Exchange research and practical experiences between China, the UK and elsewhere.
- Prepare joint position papers and commentaries for publication.
- Develop long term relationships for further research.

### ***Workshop, Peking University (Saturday-Thursday, 10-15 July)***

Senior researchers will give presentations and facilitate workshops on the themes of:

- Integrated river basin management: the current legislative setting and river basin management in UK, Europe and China.
- The critical issues and the science behind them – pollution, ecological, hydromorphological, urban and rural pressures on the system.
- The critical issues and how to address them – management challenges; existing and new science; understanding and valuing ecosystem goods and services; a risk-based approach to catchment management; monitoring and modeling- the available and developing toolkit.
- Socio-Economic relationships and working with stakeholders.

There will be a social programme of events and activities within Beijing city and its environs, which will be educational and entertaining, including ice-breaker evening, sight-seeing, visits to popular attractions and personal free-time.

### ***Field visit to the North China Plain (Friday-Saturday, 16-17 July)***

The broadly defined North China Plain encompasses the large alluvial plains of three major river basins in northern China, the Huang (Yellow), Huai and Hai river basins. The NCP is one of the most densely populated regions in the world and is under tremendous water and environmental stresses. A field trip to NCP will be led by researchers from both Peking University and the China Institute of Water Resources & Hydropower Research (IWHR).

### ***Field visit to the Heihe River basin in northwest China (Sunday-Tuesday, 18-20 July)***

The Heihe River basin is an inland river basin in the arid region of northwest China. It has been one of the desertification training sites of UNDP, where there are major ecological issues at basin scale due to water scarcity. Integrated catchment management in the Heihe River basin is the focus of a new major research initiative from the National Natural Science Foundation of China, which is coordinated through the Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences (CAREERI, CAS). Scientists from the CAREERI will provide logistical support for the field trip.

### **Who can attend the school?**

The school is designed for graduate and post-doctoral researchers, working in universities, public and private research centres or private companies. Places are limited to 30 participants. Applications are welcomed from all countries. **A bursary of up to £750 is available for researchers working, or registered for a PhD, at a UK higher educational institution.** Details of the application procedure for the school and bursaries are given overleaf. Please note the following key dates:

- Deadline for submission of application – 31<sup>st</sup> March 2010
- Successful applicants informed – 23<sup>rd</sup> April 2010
- Registration and payment of deposit – 21<sup>st</sup> May 2010
- Reserve applicants informed – 11<sup>th</sup> June 2010

### **Further information**

The Summer School website at [www.shef.ac.uk/csc/css](http://www.shef.ac.uk/csc/css) provides more detail on the sponsors, the senior researchers leading the workshops, and the field visits.