

**NATIONAL REPORT ON IHP RELATED ACTIVITIES FOR  
THE 20<sup>TH</sup> SESSION OF THE IHP INTERGOVERNMENTAL COUNCIL  
PARIS, JUNE 2012**

**UNITED KINGDOM**

**1. ACTIVITIES UNDERTAKEN IN THE PERIOD JUNE 2010 – MAY 2012**

**1.1 Meetings of the IHP National Committee**

**1.1.1 Decisions regarding the composition of the IHP National Committee**

Two meetings of the United Kingdom National Committee for the IHP were held during the reporting period; on 2 March 2011 and 6 March 2012. Since its formation in 2007 (through the merger of the UK National Committee for the IHP and the UK Inter-Departmental Committee on Hydrology) the *UK Committee for National and International Hydrology* (UKCNIH) has acted as the UK National Committee for the IHP. The committee comprises representatives from UK bodies with a major stake in hydrology and water resources research; the current organisations represented are detailed in Table 1.

**Table 1** Representation on the *UK Committee for National and International Hydrology* (as of May 2012).

Natural Environment Research Council (NERC)
Centre for Ecology and Hydrology (CEH)
Department for Environment, Food and Rural Affairs (DEFRA)
Department for International Development (DfID)
Department for Transport (DfT)
Welsh Government
Scottish Government
Northern Ireland Environment Agency (NIEA)
Department of Agriculture and Rural Development, Northern Ireland (DARDNI)
Scottish Environment Protection Agency (SEPA)
Environment Agency (EA)
Met Office
British Geological Survey (BGS)
IHP Flow Regimes from International Experimental and Network Data (FRIEND)
IHP Hydrology, Environment, Life and Policy (HELP)
IHP Water and Development Information for Arid Lands (G-WADI)
IHP International Sedimentation Initiative (ISI)
UK interests in UNESCO Ecohydrology projects
UNESCO Category II IHP-HELP Centre of Water Law, Policy & Science, Dundee
UK Committee of the International Association of Hydrological Sciences (IAHS)
UK in WMO Commission for Hydrology (WMO-CHy)
UK Water Industry Research (UKWIR)
British Hydrological Society (BHS)
International Association of Hydrogeologists (IAH)
UK National Commission for UNESCO

The Natural Environment Research Council (NERC) Centre for Ecology and Hydrology (CEH) continues to provide the UK IHP secretariat with Professor Alan Jenkins remaining as chair of the UKCNIH and Dr. Harry Dixon as its secretary.

### 1.1.2 Status of IHP-VII activities

#### IHP-VII Themes:

The UK is able to contribute towards the IHP through a large number of current scientific research programmes at a national and international scale. Table 2 outlines examples of activities by UK researchers pertinent to Phase VII of the IHP.

**Table 2** UK participation in/contribution to IHP-VII (Note: many projects contribute to multiple IHP-VII Themes/Focal Areas but are only reported against one area).

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#### **THEME 1: ADAPTING TO THE IMPACTS OF GLOBAL CHANGES ON RIVER BASINS AND AQUIFER SYSTEMS**

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Focal Area 1.1	<p>Study of Hydrologic and Carbon Services in the Western Ghats: responses of Forests and Agro-Ecosystems to Extreme Rainfall. Funded by the NERC and Indian Ministry of Earth Sciences. <i>University of Dundee IHP-HELP Centre</i></p>
Focal Area 1.2	<p>Analysis to quantify and predict components of the current and future global water cycle and related water resources. Evaluation of uncertainties and clarification of overall vulnerability of water resources within key societal and economic sectors. Research contributions through coordination of the EU-FP6 WATCH (Water and Global Change) project. Outputs published in 2011. <i>Centre for Ecology &amp; Hydrology</i></p> <p>Systematic review of glacier shrinkage in the Hindu-Kush Himalayas in order to provide an evidence base for policy decisions by the UK Department for International Development (DFID). Project findings incorporated into a region assessment of the impacts of climate change in the Hindu Kush-Himalayas presented at UNFCCC COP-17 (December 2011, Durban, South Africa). <i>Centre for Ecology &amp; Hydrology, University of Salford</i></p> <p>Analysis of driving forces and policy measures likely to affect future pan-European water demand as part of the EU-FP6 SCENES (Water Scenarios for Europe and for Neighbouring States) project. <i>Centre for Ecology &amp; Hydrology</i></p> <p>Analysis of observed streamflow trends in near-natural catchments across Europe. <i>Centre for Ecology &amp; Hydrology</i></p>
Focal Area 1.3	<p>Development of a catalogue of observed European droughts and floods (delivered as part of EU-FP7 WATCH project). <i>Centre for Ecology &amp; Hydrology, University of Reading</i></p> <p>Investigation of climatic sensitivity of river flow regimes in: northern North Atlantic region, Western Europe, Turkey, pan-Mediterranean and the UK. <i>University of Birmingham</i></p> <p>Research into the role of basin properties in modifying hydrological responsiveness to the climate. <i>University of Birmingham, Centre for Ecology &amp; Hydrology</i></p>
Focal Area 1.4	<p>Launch of web-based archive of information on groundwater occurrence and investigations in the Southern African Development Community (SADC) region, containing over 2000 reports and</p>

maps from the 'grey literature'.

*British Geological Survey*

Research to improve the understanding of the impacts of climate change on groundwater resources and local demand in Africa. Including development of an aquifer resilience map, case studies of aquifer resilience to climate change and policy recommendations for sustainable groundwater development and management.

*British Geological Survey*

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## **THEME 2: STRENGTHENING WATER GOVERNANCE FOR SUSTAINABILITY**

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Project to bring together the non-governmental organisations in four river basins (Tweed and Dee in Scotland, Fraser in Canada and Motueka in New Zealand) to explore their roles in policy delivery and participatory management.

*University of Dundee IHP-HELP Centre, University of St. Andrews*

Integrated catchment management research reviewing experiences of non-governmental catchment organisations outside Scotland and their relationship with statutory delivery of catchment improvements. Working with a wide range of HELP basins in the UK, Europe, Philippines, USA and Australia to compare approaches to priority setting; to stakeholder engagement, and to aligning plans between local communities and national targets.

*University of Dundee IHP-HELP Centre*

Focal Area 2.2

Development and dissemination of results from comparative studies into governance, legal regimes for good water governance, and indicators for governance, working with stakeholders on basin and global scale. Projects build capacity and develop better legal and administrative frameworks. EU-FP6 projects: STRIVER and BRAHMATWINN; EU-FP7 projects: GENESIS, LIVEDIVERSE, AQWA and LAGOONS.

*University of Dundee IHP-HELP Centre*

Focal Area 2.4

Two year project for LVBC (Lake Victoria Basin Commission), funded by the World Bank through the EAC (East African Community), to develop a new water release and abstraction policy for the Lake Victoria basin.

*Centre for Ecology & Hydrology*

Ongoing development of a wetland management plan for a NELSAP (Nile Equatorial Lakes Strategic Action Programme) project, funded by the World Bank through the NBI (Nile Basin Initiative), which will develop an integrated watershed management plan for the Kagera basin, the principal tributary to Lake Victoria.

*Centre for Ecology & Hydrology*

Production of a guide on the 1997 UN Watercourses Convention, which seeks to make the text of Convention more accessible to a range of stakeholders.

*University of Dundee IHP-HELP Centre*

Regional assessments of the role and relevance of the 1997 UN Watercourses Convention in East Africa, South East Asia, China, Central Asia, South America and the Congo

*University of Dundee IHP-HELP Centre*

Participation in 6th World Water Forum, including in a high level panel Global Water Governance organised by World Water

Council; a WWF organised side event on UN Watercourses Convention; a thematic session co-organised along with IUCN, WWF and others; and a side event organised with Finnish Government (SYKE) and UNECE on relationship between the UN Watercourses Convention and the UNECE Water Convention.

*University of Dundee IHP-HELP Centre*

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### **THEME 3: ECOHYDROLOGY FOR SUSTAINABILITY**

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Focal Area 3.1	<p>Review of the Lake Naivasha, Kenya ecohydrology initiatives published in <i>Freshwater Reviews</i> (December 2010). <i>University of Leicester</i></p> <p>East African Great Lakes Observatory (EAGLO) project seeking to share scientific knowledge through establishing a regional-wide database and network between scientists, decision-makers and development agencies/NGOs responsible for poverty alleviation. Project funding under joint NERC, Economic &amp; Social Research Council (ESRC) and DfID <i>Ecosystem Services for Poverty Alleviation</i> research programme. <i>University of Leicester</i></p> <p>Study of forest management and flood alleviation to improve understanding of the water storage capacity of organic soil-subsoil below ancient forest, planted forest and grassland. <i>University of Dundee IHP-HELP Centre, James Hutton Institute, Abertay University and Forestry Commission</i></p> <p>Study of the hydrological impacts of reforestation of the middle hills of Nepal and links with community water supply. UK project funded by the Royal Society. <i>University of Dundee IHP-HELP Centre</i></p>
Focal Area 3.2	<p>Spatial assessment of ecosystem services in Europe. Analysis of methods, case studies and policy as part of the PEER (Partnership for European Environmental Research) research on ecosystem services. <i>Centre for Ecology &amp; Hydrology</i></p>

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### **THEME 4: WATER AND LIFE SUPPORT SYSTEMS**

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Focal Area 4.4	<p>Partnership project funded by the Scottish Government and SEPA in the Eddleston subcatchment of the Tweed HELP basin (Scotland) to take forward twin objectives of habitat maintenance and natural flood management within a catchment approach and considering the inputs of stakeholders. <i>University of Dundee IHP-HELP Centre, British Geological Survey, Forestry Commission, Scottish Borders Council and Tweed Forum</i></p>
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### **THEME 5: WATER EDUCATION FOR SUSTAINABLE DEVELOPMENT**

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Focal Area 5.1	<p>Numerous tertiary water education and professional development activities are provided in the UK by a range of academic bodies. <i>Various UK Universities</i></p> <p>Masters courses in <i>Water Law, Water Governance and Conflict Management</i> (offered in collaboration with UNESCO IHE) and <i>Water Resources Management and Law</i> (with United Nations University Institute for Environment and Health). Short courses and training provision are provided at tertiary and professional level. <i>Dundee UNESCO IHP-HELP Centre</i></p> <p>International Water Law Symposium hosted by the Dundee IHP-</p>
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	<p>HELP Centre in cooperation with the Regional Centre on Urban Water Management in Tehran (June 2010). <i>University of Dundee IHP-HELP Centre</i></p>
Focal Area 5.2	<p>Technical assistance to the Government of India to address the issues of intra-sectoral water demands and overall water resource planning and management (World Bank Indian Hydrology Project Phase II). <i>Centre for Hydrology &amp; Ecology, British Geological Survey</i></p> <p>Water law training course conducted in cooperation with the Regional Centre for Urban and Water Resources Management (April 2011, Kish, Iran). <i>University of Dundee IHP-HELP Centre</i></p>
Focal Area 5.4	<p>Investigation of knowledge controversies around flood management in the Wooler and Eddleston catchments (Scotland). Funded through the UK <i>Rural Economy and Land Use</i> Programme. <i>University of Dundee IHP-HELP Centre, Universities of Newcastle, Durham and York and Tweed Forum</i></p> <p>Series of training and awareness raising workshops related to the 1997 UN Watercourses Convention in East Africa (Addis Ababa, Ethiopia) and Southeast Asia (Siem Reap, Cambodia and Hanoi, Vietnam) <i>University of Dundee IHP-HELP Centre</i></p> <p>Seminar at Stockholm World Water Week 2011 on <i>Strengthening Water Diplomacy in Transboundary Basins</i> - co-organised with IUCN, GWP, UNESCO-IHP and the Swiss Agency for Development and Cooperation. <i>University of Dundee IHP-HELP Centre</i></p>

### **Cross-Cutting Programmes:**

The UK continues to play a leading role in many of the cross-cutting and associated programmes of the IHP. Current involvement includes that detailed below.

#### **FRIEND**

The UK has maintained its involvement in the FRIEND Programme providing support and research contribution to FRIEND initiatives worldwide through the activity of many hydrologists from across the country. Harry Dixon (CEH) replaced Gwyn Rees (CEH) as the UK representative on the Steering Committee of European (EURO) FRIEND in March 2011. Gwyn Rees remains a member of the Steering Committee of Hindu Kush Himalayan (HKH) FRIEND. Helen Houghton-Carr (CEH) continues to represent the UK on the Steering Committee of Southern Africa (SA) FRIEND

Professor David Hannah (University of Birmingham) coordinated the EURO-FRIEND Project Group 3 (Large Scale Hydrological Variations), one of four sub-projects of European FRIEND between 2003 and 2012 and continues to be actively involved in a number of FRIEND activities. Harry Dixon acts as a Regional Coordinator of the EURO-FRIEND European Water Archive (EWA).

UK scientists have participated in a range of FRIEND initiatives over the reporting period, including:

- Harry Dixon and David Hannah attended the EURO-FRIEND Steering Committee meeting held in October 2010 (Fez, Morocco).
- David Hannah continues to contribute to the development of the Programme through participation in a number of meetings between FRIEND Project leaders and the IHP Secretariat held since 2011.

- Ten UK scientists contributed towards the Sixth World FRIEND conference, *Global Change: Facing Risks and Threats to Water Resources* (Oct 2010, Fez, Morocco). Conference proceedings were published in the UK by IAHS Press. David Hannah was a member of the conference's International Organizing Committee and contributed to the 6<sup>th</sup> Global FRIEND Report.
- Gwyn Rees was amongst a team of six EURO-FRIEND based scientists that delivered a regional study course on *Climate Change, Hydrological Droughts and Floods* in Thimphu, Bhutan (November 2010).
- The University of Birmingham, King's College London and others have continued activities contributing to EURO-FRIEND Project Group 3. In addition to a number of individual research projects, a conference session was convened at the EGU General Assembly (April 2011) on the issue of *Large-scale hydrology* and a special issue of *Hydrological Processes* was published.

Significant UK research contributions to the FRIEND programme have been conducted over the reporting period, examples of which include:

- Between 2007 and 2011 considerable contributions to the FRIEND Programme were made through the EU-FP6 WATCH (Water and Global Change) project – see Section 1.1.2 for examples of this research (CEH).
- Research into the connections between Atmospheric Rivers and winter/autumn flooding in the UK and Western Europe (University of Reading).
- Continuing research into climate-hydrology interactions (University of Birmingham and CEH).
- David Hannah, Gwyn Rees, Dr. Christel Prudhomme (CEH) and other EURO-FRIEND co-authors published an invited commentary paper regarding *Large-scale river flow archives: importance, current status and future needs* (2011).

## **HELP**

The University of Dundee IHP-HELP Centre for Water Law, Science and Policy, a Category II Centre under the auspices of UNESCO, is the European Regional Coordinating Unit for the HELP Programme. In coordinating the European HELP Basins, the Centre seeks to actively engage with the HELP agenda in the UK and Europe.

Over the reporting period UK activities in relation to HELP have included:

- Continuing initiatives within the active UK HELP basins including the Don, Eden, Tweed, Dee and Thames.
- Professor Mike Bonell (University of Dundee) participated in the 2010 IHP//IAHS Kovacs Colloquium, *Hydrocomplexity: New Tools for Solving Wicked Water Problems* (July 2010, Paris).
- Professor Chris Spray (University of Dundee) contributed to the 2<sup>nd</sup> International HELP Symposium (November 2011, Panama).
- Dr. Sarah Hendry (University of Dundee) and Mike Bonell led a collaborative project (*Developing Networks Amongst UK River Basins: Interfacing Science with Emerging Law and Policy Frameworks*) funded by the Carnegie Trust to identify synergies across UK and Irish HELP basins.
- Research conducted by the Dundee IHP-HELP Centre, in both the water law/policy and science fields, continues to develop the HELP approach and involve the HELP network/basins – see Section 1.1.2 for examples of this work.
- Dr David Harper (University of Leicester) continues to jointly coordinate two HELP basins, the Welland (UK) and Lake Naivasha (Kenya). The *Welland River Trust* was incorporated in 2010 and works to advance the principles of the HELP and the UNESCO Ecohydrology programmes.

## **Associated Programmes:**

### **G-WADI**

The involvement of UK scientists in the development of the G-WADI programme continued between 2010 and 2012. Professor Mike Edmunds (University of Oxford) continues to serve on the G-WADI steering committee and has been involved in coordination of activities across the global network. UK contributions over the reporting period include:

- Mike Edmunds chaired a special session of the international conference, *Arid and Semi-arid Development through Water Augmentation* (December 2010, Valparaiso, Chile) at which the regional G-WADI for Latin America and the Caribbean (LAC G-WADI) was inaugurated.
- Following the G-WADI workshop on *Water – Science, Policy and Capacity Building* (April 2010, Dakar), which was coordinated by Mike Edmunds, a new regional network for Africa (G-WADI AFRICA) was setup.
- Mike Edmunds presented a paper on *Water based rural development and water security in semi-arid regions* as part of a special IHP session at the 2<sup>nd</sup> Arab Water Forum (November 2011, Cairo).

### **ISI**

The UK has maintained active involvement in ISI over the reporting period. Professor Des Walling (University of Exeter) continues to act as a member of the ISI Steering Committee and is actively involved in several ongoing ISI activities. He is a member of the ISI Core Steering Group and attended its meetings in September 2010 (Stellenbosch) and April 2011 (Vienna). Other recent UK contributions have included:

- Des Walling presented a paper at the, ISI co-sponsored, *International Symposium on River Sedimentation* (September 2010, Stellenbosch, South Africa).
- ISI is collaborating with SedNet, the European Sediment Network, to develop a Practical Training Course dealing with Sediment Management in Sustainable River Basin Management. Des Walling attended a meeting of a small group of ISI and SEDNET members in August 2011 (Paris), to discuss the development of such a course. A course outline has been produced and sources of funding to support the development of the course are being sought.
- Papers from a 2–day workshop on *Sediment Problems and Sediment Management in Asian River Basins* (held at the IAHS/IAH Scientific Assembly in September 2009, Hyderabad, India) and co-sponsored by IAHS, ISI and WASER were published as IAHS Publication no. 349 in late 2011. Des Walling coordinated the compilation of this publication and edited the individual contributions.
- Des Walling contributed to the UNESCO Technical Document in Hydrology, *Sediment Issues and Sediment Management in Large River Basins: Interim Case Study Synthesis Report*, and associated case study reports, published in 2011.
- Des Walling is a member of the Advisory Council of the UNESCO Category II *International Research and Training Center on Erosion and Sedimentation* (IRTCES, Beijing, China).

### **Ecohydrology**

Dr. David Harper (University of Leicester) continues to play a leading role in coordinating research and capacity building activities in the area of Lake Naivasha (Kenya) – which was renewed as an IHP Ecohydrology Operational Demonstration Project over the reporting period. Recent UK contributions include:

- Ongoing research by the University of Leicester supporting the *Imarisa Naivasha* initiative to restore the ecosystem of Lake Naivasha (launched May 2011).

- A paper on the Lake Niavasha project was given by Ed Morrison (University of Leicester) at the First HELP Sub-Saharan Africa Basins Workshop (November 2011, Johannesburg, South Africa).
- David Harper's served as a Western European representative on the Governing Board for the UNESCO Category II *European Regional Centre for Ecohydrology* (Lodz, Poland) until his term of office ended in 2011.

## **1.2 Activities at national level in the framework of the IHP**

### **1.2.1 National/local scientific and technical meetings**

The UK hydrological community continues to convene a comprehensive range of national and local scientific/technical meetings. The British Hydrological Society (BHS) is a UK national society for the advancement of hydrology. The Society's membership is drawn from both the academic (universities and research institutes) and operational sectors. The Society holds regular national and regional scientific and technical meetings related to Hydrology. Over the reporting period numerous meetings have been held focusing on topic such as *Hydrometry*, *Upland Hydrology* and *Applied Flood Hydrology*. The Society's latest International Symposium was held in Newcastle upon Tyne in July 2010 with delegates from 24 countries attending. *Hydrology Research* is the official journal of the Society and the Nordic Association for Hydrology.

### **1.2.2 Participation in IHP Steering Committees/Working Groups**

UK researchers continue to be involved in wide range of IHP Steering Committees and Working Groups. In relation to the cross-cutting and associated programmes of IHP, UK scientists serve on, amongst others, the committees of FRIEND, HELP, and ISI (see Section 1.1.2). UK hydrologists sit on the Governing Boards of a number of Category II Centres (see Section 1.4).

The UK continues to actively engage with other National Committees in IHP Region 1, providing contributions to consultations and other initiatives. In September 2011, Alan Jenkins and Harry Dixon represented the UK National Committee for the IHP at the IHP Region 1 meeting in Dublin, Ireland.

The UK maintains strong links with the UNESCO Division of Water Sciences. Over the reporting period the National Committee for the IHP has provided a UK response to both the Member State consultations on the formation of IHP-VIII and feedback to the Evaluation Committee for IHP-VI.

Nationally Alan Jenkins and Harry Dixon (as Chair and Secretary of the UKCNIH) represent UK involvement in the IHP on UK National Commission for UNESCO initiatives. Harry Dixon attended the recent UNESCO Category II status renewal evaluation of the Dundee IHP-HELP Centre as an observer on behalf of the UK National Commission. Through the Commission the IHP National Committee provides input on relevant policy issues to both UNESCO and UK Government.

Professor Pat Wouters (University of Dundee IHP-HELP Centre) serves on the International Advisory Committee for the United Nations University Institute of Water, Environment and Health (UNU-INWEH) as well as the UK National Commission for UNESCO's Scotland Committee and UNESCO Chairs Group.

### **1.2.3 Research/applied projects supported or sponsored**

The European Union continues to be an important source of funding for UK research activities contributing to the IHP. For example, the recently completed European Union Sixth Framework Programme for Research and Technological Development (EU-FP6) Integrated Project Water and Global Change (WATCH) provided opportunities for UK scientists to contribute to the FRIEND programme.

The UK, through NERC, are members of the EU Joint Programming Initiative on Water which has an international dimension and will be developed over the next 3 years as part of a Coordination and Support Action.



Through the Belmont Forum and G8 Heads of Research Councils (G8HORCs) the UK are contributing to the recently established International Opportunities Fund aimed at supporting excellent research on the themes of Coastal Vulnerability and Freshwater Security.

Within the UK the Natural Environment Research Council (NERC), the Economic & Social Research Council (ESRC) and the Department for International Development (DfID) continue to fund the *Ecosystem Services for Poverty Alleviation* (ESPA) research programme, a multi-disciplinary programme that aims to improve ecosystem management and contribute to reducing poverty in developing countries.

#### **1.2.4 Collaboration with other national and international organizations and/or programmes**

Close links are maintained between the UK National Committee for the IHP (UKCNIH, see Section 1.1) and other international organizations and programmes. Dr Ann Calver continues to represent UK involvements in the WMO Commission for Hydrology (WMO-CHy) and UK scientists continue to be actively involved in a wide range of WMO initiatives.

Linkages with the IAHS are maintained through David Hannah, Chair of the UK National Committee for IAHS, and UK scientists continue to contribute to a wide range of IAHS Commissions and activities. At the XXV IUGG General Assembly (July 2011, Melbourne, Australia) a total of ten IAHS symposia and workshops were (co-)convened by UK hydrologists.

Professor Mike Acreman (CEH) continues to offer support to the Ramsar Convention on Wetlands as a member of the Scientific and Technical Review Panel. Dr Eleanor Blyth (CEH) is a member of the Global Energy and Water Cycle Experiment (GEWEX) Scientific Steering Group. Pat Wouters is a member of the Global Water Partnership Technical Experts Committee and sits on the World Economic Forum Global Agenda Council on Water Security.

UK hydrogeologists continue to be actively involved in a number of Commissions and Working Groups of the IAH. The British Geological Survey (BGS) has continued its involvement in IAH/UNESCO IHP sponsored initiatives related to the development of the global network on Managed Aquifer Recharge (MAR). Dr. Ian Gale (BGS) continues to be actively involved in MAR-NET and was a member of the organising committee for the 7<sup>th</sup> International Symposium on MAR (October 2010, Abu Dhabi).

#### **1.2.5 Other initiatives**

### **1.3 Educational and training courses**

The UK continues to provide and contribute to a wide range of hydrological training and education both nationally and overseas. See other areas of report for examples, including current educational initiatives by the Dundee IHP-HELP Centre. In 2011 the British Hydrological Society launched a studentship scheme to help support members who wished to study hydrology at postgraduate masters level.

#### **1.3.1 Contribution to IHP courses**

See other sections of report.

#### **1.3.2 Organization of specific courses**

#### **1.3.3 Participation in IHP courses**

See other sections of report.

### **1.4 Cooperation with the UNESCO-IHE Institute for Water Education and/or international/regional water centres under the auspices of UNESCO**

#### **University of Dundee IHP-HELP Centre for Water Law, Science and Policy (UNESCO Category II Centre)**

The Centre for Water Law, Science and Policy was officially launched as a Category II IHP-HELP Centre under the auspices of UNESCO in November 2006. The Centre

underwent its five yearly UNESCO Category II status renewal evaluation in December 2011, the report and recommendations from which are still awaited.

The Centre aims to find new ways of effectively integrating law, policy and science to address water challenges of the 21<sup>st</sup> century. Activities fall within the following main areas, all of which are relevant to IHP-VII:

- i. Promotion of an interdisciplinary approach to addressing global water issues with a focus on poverty reduction and international development issues, and, including water law as an essential and integral element thereof.
- ii. Provision of intellectual leadership necessary in achieving this approach and dissemination of relevant research and scholarship on the topic.
- iii. Communication of legal expertise on global water issues for the IHP-HELP Programme, especially through the HELP Regional Coordinating Units, as well as to support the other water-related activities of IHP.
- iv. Operation of the Regional Coordinating Unit for the European HELP basins.

Whilst the Centre's activities relate to a broad range of the themes of IHP-VII, there is a clear focus on governance in many areas. Examples of specific contributions to IHP-VII by the Dundee Centre are included in Section 1.1.2. IHP-VII Theme 5: *Water Education for Sustainable Development* (tertiary education) is of high relevance to the centre's work. Graduate degree programmes are offered in collaboration with UNESCO IHE and UNU-INWEH. The Centre works with the Global Water Partnership *International Knowledge Chain Scholarship Programme* to enable students to study international water law at Dundee. Over the reporting period, the Centre has collaborated with the Category II *Regional Centre on Urban Water Management* in Tehran to host an International Water Law Symposium (June 2010) and training course (April 2011).

As the European Regional Coordinating Unit for IHP-HELP basins, the Centre continues to actively contribute towards this cross-cutting programme; details of some recent initiatives in this area are given in Section 1.1.2.

#### **European Regional Centre for Ecohydrology (UNESCO Category II Centre)**

David Harper (University of Leicester) served as Western European representative on the Centre's Governing Board between 2006 and 2011.

#### **International Research and Training Centre on Erosion and Sedimentation (UNESCO Category II Centre)**

Des Walling (University of Exeter) continues to serve as the Region 1 representative on the Centre's Advisory Council.

### **1.5 Publications**

No list is maintained of publications related to the IHP. See other sections of report for examples of related publications.

### **1.6 Participation in international scientific meetings**

#### **1.6.1 Meetings hosted by the country**

UK scientists have led and contributed to numerous international scientific meetings in relation to the IHP over the reporting period, both in the UK and abroad. See other sections of the report for examples of these meetings.

#### **1.6.2 Participation in meetings abroad**

See other sections of report.

### **1.7 Other activities at regional level**

#### **1.7.1 Institutional relations/cooperation**

UK hydrologists continue to be involved in collaboration with counterparts in the Republic of Ireland with scientists from the Northern Ireland Rivers Agency and

Northern Ireland Environment Agency attending the annual Irish National Hydrology Conferences in 2010 and 2011.

### **1.7.2 Completed and ongoing scientific projects**

See other sections of report.

## **2. FUTURE ACTIVITIES**

### **2.1 Activities planned until December 2012**

See other sections of the report. UK hydrologists will organise and contribute to wide range of forthcoming international activities, including:

- UNWC Global Initiative Symposium, *The 1997 UN Watercourses Convention – what relevance in the 21<sup>st</sup> century*. Co-organised by the Dundee IHP-HELP Centre for Water Law, Policy & Science and WWF (June 2012, Dundee, UK).
- 3<sup>rd</sup> Annual International Law and Transboundary Freshwaters Symposium and Workshop: *Preparing for the 2013 International Year of Co-operation*, Dundee IHP-HELP Centre for Water Law, Policy & Science (June 2012, Dundee).
- Adrian Collins (ADAS) is a member of the Organising Committee for the IAHS-International Commission on Continental Erosion Conference on *Wildfire and Water Quality: Process, Impacts and Challenges* (June 2012, Banff, Canada).
- British Hydrological Society 11<sup>th</sup> National Hydrology Symposium, *Hydrology for a Changing World* (July 2012, Dundee, UK).
- Des Walling is a member of the International Organising Committee and Chair of the Scientific Committee for the IAHS-International Commission on Continental Erosion Symposium on *Erosion and Sediment Yields in the Changing Environment* (October 2012, Chengdu, China).

### **2.2 Activities foreseen for 2013-2014**

### **2.3 Activities envisaged in the long term**

UK scientists intend to continue their participation in the IHP, contributing to a wide range of initiatives and programmes (including FRIEND, G-WADI, HELP, ISI) as funding permits.

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Report compiled by Dr. Harry Dixon and Professor Alan Jenkins (Centre for Ecology and Hydrology) on behalf of the UK Committee for National and International Hydrology. May 2012.

For further information regarding the activities outlined in this report please contact Harry Dixon (harr@ceh.ac.uk).