

**Evaluation of the International IHP-HELP Centre
for Water Law, Policy and Science, Dundee**

Dr. Zafar Adeel and Dr. Susana Neto

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Glossary of Terms:

Evaluation Team: The Evaluation Team comprised Dr. Zafar Adeel (Director, United Nations University Institute for Water, Environment and Health) and Dr. Susana Neto (Senior Researcher, Technical University of Lisbon and HELP Coordinator for the Guadiana Basin).

ICHARM: The International Centre for Water Hazard (Japan)

IHP: International Hydrological Programme, of UNESCO

HELP: Hydrology for the Environment, Life and Policy

PCCP: Potential Conflict to Conflict Prevention

The Centre: International IHP-HELP Centre for Water Law, Policy and Science, Dundee

RCU: Regional Coordination Unit

RCWUM: Regional Centre on Urban Water Management (Iran)

UNESCO: United Nations Educational, Scientific and Cultural Organization

1. Executive Summary

The International IHP-HELP Centre for Water Law, Policy and Science, at the University of Dundee, started operation in 2006 following approval for establishing such a Centre at the UNESCO General Conference 33rd Session in 2005. It became a UNESCO Category II Centre in 2008 through an establishing Agreement, signed on the 25th of September 2008 between UNESCO and the University of Dundee. This Agreement established the objectives for the Centre (presented in Section 3).

The Agreement also established a set of ‘Functions’ for the Centre: (i) delivering educational and training activities, (ii) convening of interdisciplinary scientific symposia and conferences, (iii) providing a focal point for HELP basins worldwide, (iv) endeavour the Tweed basin as a HELP basin, (v) develop new approaches to water resources management to provide a forum for think-tank meetings, expert inputs to UNESCO–IHP, and (vi) collaborate proactively with the other UNESCO HELP RCU and IHP Water Centres. The intent of these objectives and functions is incorporated into the structure of the Findings in Section 4 of this Report.

In late 2011 UNESCO commenced a review process by establishing Terms of Reference and appointing an Evaluation Committee to review the performance of the Centre and make recommendations for the future. The ultimate objectives of this review were to assess performance of the Centre with respect to its Terms of Reference and contributions to the UNESCO mandates and its Strategic Program Objectives (SPOs), to provide a valuable element for deciding whether the agreement between UNESCO and the Host Government should be renewed, and to ensure that the focus and coverage of the activities of the Centre are in line with the strategic objectives of UNESCO.

The evaluation methodology comprised a review of background documents, and a site visit to the Dundee Centre by the evaluation team on 5 and 6 December 2011. The evaluation team, supported by a representative from UNESCO, received presentations from the Centre staff, conducted individual and group interviews, and carried out *in camera* consultations.

This review found that the University of Dundee (UOD) provides a substantial contribution to the operational budget of the Centre (£3.2m), and there is evidence of effective and productive operational linkages to other faculties within UOD, including internal links with the Geography Department. The UOD also expressed its commitment to support the Centre by allocating financial resources of £5 million for a five-year period, starting in 2012.

A brief overview of the Evaluation Team’s **findings** is presented here:

Regarding the requirement to take an **interdisciplinary approach to addressing global water issues**, the review found that multiple research projects and initiatives are underway; the interlinkages between research projects was found to be weak or non-existent. There was due recognition by other Partners interviewed by the evaluation team that the Centre was providing a substantial research contribution, building academic degrees (LLM and MSc) and contributing to broader curriculum in water sciences, based in an interdisciplinary approach (UNESCO-IHE).

Some graduates of these courses are now placed in key governmental positions. The Centre has also successfully contributed to and has led research publications on topics related to water law, selected water sciences and policy issues (eg water security, PCCP, project outputs).

Demonstrated **intellectual leadership in international water law** was identified through this review. Partners confirmed positive outcomes to the international water law framework, particularly regarding an operational strategy for transboundary waters, promoting cooperation in international basins, through promoting political dialogue, improving regulatory tools, delivering intensive courses etc (GWP and others). However, it was also noted that the Centre does not appear to have a clearly enunciated strategic vision, including a description of intended results or outcomes. As well, the full extent of science-policy linkages is not completely developed, although there is clear evidence through some partnerships (eg Scotland and China) of linkages with other policy areas, such as flooding and forestry.

The review found that production and dissemination of publications, and **support for the HELP network** in terms of legal expertise, were limited or non-existent, although some feedback channels to the HELP network were utilized and supportive activities to raise awareness, improve knowledge and understanding of international water law and the UN Watercourses Convention was recognised (WWF).

Regarding the role of **Regional Coordinating Unit for the European HELP basins**, the review found that there is a lack of strategic leadership in development of the regional HELP network. The Regional coordination at European level was observed to be largely absent. Most engagement with HELP Basins was in the form of the Centre contacting Basins for information by email and request forms. The Centre took the initiative to create a LinkedIn group for IHP-HELP, which could evolve to a website for European HELP Basins. Funding constraints were deemed to be one of the reasons for lack of activity as a Regional Coordination Unit. At a national level, the Tweed basin was successfully established as a HELP Basin, consistent with the UNESCO-Centre agreement. However, branding of the “Tweed Forum” as a HELP basin has been rather weak.

Regarding the **relevance of IHP-HELP Centre activities to UNESCO’s Medium-term Programme** priorities, especially in the field of water management (IHP-VI and VII), this review found that the Centre undertakes a wide breadth of research and consultancy recognizing that if water law is to effectively implement IWRM and help the international community reach international development targets three essential elements must be considered: water rights, frameworks for allocation, and institutional mechanisms. Overall, the relevance of the Centre’s work to the IHP plans was found to be strong.

Regarding the **results achieved by Centre, and its contribution to UNESCO’s efforts in achieving respective sustainable water management**, the review found that there is evidence of networking capacity, with human and budgetary resources available to be allocated. However, strategic focus on networking and engagement in the HELP network has been minimal, mainly limited to online engagement (LinkedIn) and emails. Also, national engagement with the UK research community is not strong and is primarily occurring through the “UK Committee for National and International Hydrology”. There is regular reporting of Centre’s activity on HELP, but limited or no feedback on wider HELP regional coordination and network issues.

Regarding the **quality of coordination and interaction between UNESCO Headquarters, other Water Centres**, Field Offices and IHP-HELP Centre's partner entities with regard to planning and implementation of programmes, the review found that the Centre has built several strategic links with relevant partners, such as GWP and WWF. Inside UNESCO cooperation has been developed with other centres, including UNESCO-IHE (Netherlands), RCWUM (Iran), ICHARM (Japan) and Hydroex (Brazil).

Regarding **funding details**, mechanisms for securing funds and their risks for sustained institutional capacity, viability, and quality of organizational management and programme implementation systems adopted by IHP-HELP Centre, the review found that a total of £7.5M has been provided over the life of the Centre to date, comprising £1.7 M from the Scottish Government over 5 years, £3.2M in support funding by UOD and £2.6M in targeted research and academic funding. The award from the Scottish Government led, in part, to development of a revised business plan, which is attached to this report as Annex 8. The UOD has committed future funding of £5M over five years subject to renewal of the UNESCO Centre. The Centre also has a high rate of success (50%) in proposals and has received EU funding for research and teaching projects totalling £2.6M.

Based on the evidence available to the Evaluation Team, it is clear that while the Centre has a number of shortcomings in its strategic visioning and operation, there is demonstration of strategic value to UNESCO. With a stronger strategic vision and trans-disciplinary leadership to set future directions, the Centre can serve its core objectives and become a valuable contributor to the UNESCO network. Accordingly, the Evaluation Team recommends to UNESCO that the IHP-HELP Centre's designation as a UNESCO Category 2 Centre should continue.

A summary of specific recommendations is presented here, relating to the role of the Centre. These are further supported by additional recommendations made to UNESCO to strengthen the role of the Centre's Governing Board, as presented in Section 6.

Summary of Specific Recommendations to the Centre:

- The Centre Director and team need to invest time in *developing a clear vision* for the Centre. Such a vision should address the mandate provided by UNESCO to the Centre.
- The Centre should adopt its activities under *Results-Based Management (RBM) approach*; such a framework should be closely linked to the visioning and strategic planning process. We further recommend that the Centre should report back to UNESCO in 2 years on RBM implementation and achievement of outcomes.
- There is a need for making a greater effort needed for *branding of the Centre*, including a logo.
- The Centre should *invest more in knowledge exchange*, including the production of policy-briefs and short synthesis documents, to disseminate within the network of partners and the HELP basins network, in order to strengthen the image, profile and impact of the Centre.
- The Centre needs to invest in creating *cross-linkages across projects*, facilitated through a mechanism for information sharing and cross-dissemination across project boundaries.
- The Centre should put greater emphasis on *regional networking*, particularly within the HELP framework.

2. Overview and Scope of the Evaluation

2.1. History of the Centre

In September 2004, the Permanent Delegation of the United Kingdom to UNESCO requested the 16th session of the Intergovernmental Council of IHP for the establishment of a UNESCO IHP-HELP Centre for Water Law, Policy and Science at the University of Dundee. After due consideration, the Council adopted Resolution XVI-5, in which it welcomed the proposal, recognizing the potential role of the proposed HELP Centre in addressing key issues related to the world's looming water crisis, including in particular, the need for a sound legal framework to ensure the effective management of water resources and assisting States to achieve their commitments under the United Nations MDGs. It was highlighted that the effective management of water resources at the local, regional and global levels, consistent with the principles of integrated water resources management, requires an operational interdisciplinary approach integrating the expertise of a broad spectrum of disciplines – including water law.

This was followed with the submission of proposal for the establishment of the International IHP-HELP Centre for Water Law, Policy and Science at the University of Dundee, UK, to the 171 Executive Board (171 EX/57) in April 2005. The Executive Board at its 171st session welcomed the proposal and recommended in 171 EX/Decision 63 that a feasibility study regarding the Centre be conducted with the results presented to the 172nd session of the Executive Board. After reviewing the report by the Director-General on a feasibility study for the establishment of the proposed centre (172 EX/15), the Executive Board at its 172nd session (172 EX/Decision 14) recommended that the General Conference at its 33rd session approve the establishment of the Centre and that it authorize the Director-General to sign an agreement with the Government of the United Kingdom to establish the Centre under the auspices of UNESCO. The General Conference at its 33rd session in October 2005 approved the establishment of the centre.

The Agreement signed on the 25th of September 2008 between UNESCO and the University of Dundee regarding the Statutes of the International IHP-HELP Centre for Water Law, Policy and Science, at the University of Dundee, established as objectives for the Centre the following (Point 1. of Article 3):

- (a) to provide a facility that promotes an interdisciplinary approach to addressing global water issues with a focus on poverty reduction and international development issues (including the United Nations Millennium Development Goals related to water), and, including water law (international, national and transnational water law) as an essential and integral element thereof;
- (b) to provide the intellectual leadership necessary in achieving this approach and to establish a dedicated institution for the dissemination of relevant research and scholarship on the topic, available to the global water-concerned community worldwide and aimed at generating goodwill with the international community;

- (c) to communicate legal expertise on global water issues for the HELP Programme of the UNESCO IHP, especially through the IHP-HELP Regional Coordinating Units, as well as to support the other water-related activities of IHP;
- (d) to act as the Regional Coordinating Unit for the European HELP basins and proactively interact with other HELP Regional Coordinating Units.

The Agreement also established a set of ‘Functions’ through which the Centre would accomplish the above objectives. These functions were (i) the delivery of educational and training activities, (ii) the convening of interdisciplinary scientific symposia and conferences, (iii) the provision of a focal point for HELP basins worldwide, (iv) to endeavour the Tweed basin as a HELP basin, (v) to develop new approaches to water resources management to provide a forum for think-tank meetings, expert inputs to UNESCO–IHP, and (vi) to collaborate proactively with the other UNESCO HELP RCU and IHP Water Centres (Point 2. of Article 3 of the Agreement).

The intent of these objectives and functions is incorporated into the structure of the Findings in Section 4 of this Report. The evaluation methodology flowed from firstly assessing achievements from the Centre towards these four agreement objectives, and then, at a higher level, assessing the contribution towards the broader UNESCO objectives.

2.2. Justification of the Evaluation

A new Integrated Comprehensive Strategy for Category II Institutes and Centres (document 35C/22) was approved by the 35th Session of the General Conference (Resolution 103). According to this strategy it is necessary to carry out a formal review and evaluation before the Director-General can renew the existing agreement. This new strategy applies to all new proposals for the establishment of category II institutes and centres, as well as any renewals of the existing agreements. The relevant articles of document 35C/22 are copied below.

A.3 Periodic review and evaluation

A.3.1 The agreement for the establishment of an institute or centre as a category II institute shall be concluded for a definite time period, not exceeding six years. The agreement may be renewed by the Director-General in the light of the review in A.3.2 and the evaluation referred to in A.3.3.

A.3.2 At least six months prior to the expiration of the agreement, the Director-General will carry out a review of the activities of the institutes and of the contribution to the Strategic Programme Objectives of the Organization and the Strategy for category II institutes and centres approved by the General Conference. He will include the results of this review in his report to the Executive Board on the execution of the Programme.

A.3.3 To facilitate the review, the Internal Oversight Service will consider in its planned evaluations of the Strategic Programme Objectives (SPO), the contribution of the relevant category II institutes and centres to the SPO under review.

Since IHP-HELP Centre has been in operation for over six years there is a need for the evaluation to assess whether the centre’s designation as category 2 Centre should continue or lapse. The purpose of the review is to determine:

- the progress made by the centre in meeting its terms of reference, its stated aims and objectives stipulated in the agreement signed with UNESCO; and
- the degree of success achieved in undertaking the centre's programme of work to fulfill its Terms of reference (ToR).

The ultimate objectives of this review is then to assess performance of the International IHP-HELP Centre for Water Law, Policy and Science with respect to its terms of reference and contributions to the UNESCO mandates and its Strategic Programme Objectives (SPOs), to provide a valuable element for deciding whether the agreement between UNESCO and the host government should be renewed, and to ensure that the focus and coverage of the activities of the Centre are in line with the strategic objectives of UNESCO. The review/evaluation will have the below main objectives:

- Relevance of IHP-HELP Centre activities to UNESCO's Medium-term Programme priorities (33 C/4 and 34 C/4) especially in the field of water management (IHP-VI and VII);
- Results achieved by IHP-HELP Centre, and its contribution to UNESCO's efforts in achieving respective sustainable water management;
- Quality of coordination and interaction between UNESCO Headquarters, other Water Centres, Field Offices and IHP-HELP Centre's partner entities with regard to planning and implementation of programmes;
- Funding details, mechanisms for securing funds and their risks for sustained institutional capacity, and viability, and quality of organizational management and programme implementation systems adopted by IHP-HELP Centre;
- Identify and propose the needed improvements for the functioning of IHP-HELP Centre;
- Recommend actions necessary to be taken by the host country and UNESCO; and
- Based on the above points recommend whether the IHP-HELP Centre's designation as a UNESCO Category 2 centre should continue or lapse.

3. Methodology

The methodology for evaluation was drawn in accordance with the Terms of Reference of the evaluation and comprised the following five components:

- 3.1. **Site Visit by the Evaluation Team:** Both members of the evaluation team visited the Centre on 5 and 6 December 2011. The evaluation team worked at the Centre, received a number of presentation from the Centre staff, conducted individual and group interviews, and carried out its *in camera* consultations behind closed doors. The agenda of the visit is presented here as Annex 1.
- 3.2. **Individual and Group Interviews:** As noted in Annex 1, the Evaluation Team conducted a number of group interviews as part of the agenda. In addition, the Evaluation Team also conducted *in camera* interviews with the following individuals:
 - Mr. Ian Ball, Dean, University of Dundee
 - Dr. Patricia Wouters, the Centre Director
 - Mr. Harry Dixon, Centre for Ecology and Hydrology
- 3.3. **Review of Background Documents:** The Evaluation Team reviewed a broad set of documents for this evaluation task. These included documents provided by the Centre and additional documents provided by the Centre upon request of the Evaluation team; both lists are provided here:

Documents Provided by the Centre:

- Reflective analysis for UNESCO Category II renewal Dec 2011 v2
- UNESCO Centre org chart
- Evaluation_IHPHELPCentre_2011 (2)
- Letter from Prof. Downes, Principal & Vice Chancellor, University of Dundee (attached here as Annex 7)

Documents Requested by the Evaluation Team:

- List of graduates and their engagement in home countries
- Minutes/recommendations of the Executive Board (“Notes to the Principal”)
- List of institutional partners
- List of HELP partners engaged in projects
- Documentation of Dundee University’s financial commitment to the Centre (2012 onwards), preferably from the Principal
- List of policy briefs produced by the UNESCO Centre
- List of PhD candidates and their research topics
- Revised financial statement, with clear description of income and expenditure
- Final notes regarding the HELP UNESCO evaluation meetings in Ecuador

3.4. **Email Questionnaires:** In addition to individual and group interviews, the Evaluation Team decided to contact a number (13) of the institutional partners via email in order to establish some additional information. The institutional partners, selected from a longer list of such institutions provided by the Centre, are as follows:

- Global Water Partnership – GWP (Sweden) ✓
- UNESCO IHE (the Netherlands) ✓
- World Wildlife Fund – WWF (Switzerland) ✓
- Tweed Basin (UK) ✓
- The Scottish Government (UK) ✓
- British Geological Society (UK)
- Indian Institute of Technology - IIT, Roorkee (India)
- Chinese Academy of Forestry ✓
- James Cook University (Australia)
- Newcastle University (UK)
- Hidroex UNESCO Centre (Brazil)
- RCUWM Tehran Centre (Iran) ✓
- Centre for Ecology and Hydrology (UK)

Four questions were sent by e-mail to each institution/organization:

1. What has been the key mode of engagement of CAF with the UNESCO Centre?
2. Has the UNESCO Centre contributed significantly to your work?
3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?
4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

The Evaluation Team received 7 Partners answers, indicated by check-mark (✓) in the list above (See Annex 2)

3.5. **In-Depth Dialogue amongst the Evaluation Team:** The Evaluation Team, in consultation with Dr. Siegfried Demuth, undertook detailed and in-depth discussion in Dundee during 5-6 December 2011. Issues related to sustainability of the Centre, major challenges and overall recommendations were discussed during the *in camera* sessions. Further deliberations via Skype and telephone amongst the Evaluation Team continued throughout the months of January and February 2012.

4. Findings

The Evaluation Team has analysed the Centre's context, performance and future development, in terms of its role as a UNESCO Centre, based on the information provided and via the methodology described above.

The following dimensions were identified by the Evaluation Team:

a. Centre's position within the UOD

- The UOD provides a substantial contribution to the operational budget of the Centre (£3.2m) and there is a written commitment from UOD to continue funding for future operations (£5m over 5 years) – Annex 7. In addition, several facilities are currently provided by the University (building, administrative, management support).
- There is evidence of effective and productive operational linkages to other faculties within UOD, including internal links with the Geography Department.

b. Interdisciplinary approach to addressing global water issues

- The Centre's research is evaluated under the CEF framework (Scotland-based research review). Multiple research projects and initiatives are underway, however the interlinkages between research projects are weak or non-existent.
- The Centre has an important partnership with UNESCO-IHE on education, including building of common academic degrees (LLM and MSC) and summer programmes, working towards a broader curriculum in water sciences. The Centre is also implementing programs for distance learning on water law and for water practitioners.
- The Centre engages several graduate students for Master and PhD programs with an interdisciplinary intent, however a review of student thesis' shows a domination of legal framework analysis. There is evidence of a high level of re-engagement of previous students in their home countries after graduation.

c. Intellectual leadership

- There is demonstrated intellectual leadership in international water law. However, the Centre does not appear to have a clear strategic vision, including a description of the intended outcomes and results in the long run.
- The full extent of science-policy linkages is not completely developed, although there is clear evidence through some partnerships (eg Scotland and China) of linkages with other policy areas, such as flooding and forestry.

d. Legal expertise on global water issues for the HELP Programme of the UNESCO

- Production and dissemination of publications, and support for the HELP network in terms of legal expertise, were limited or non-existent, although some feedback channels to the HELP network were utilized (included in Annex 6 of publications list). The Centre also contributed to the legal expertise provided by UNESCO in the publication of the World Water Development Reports (3rd Edition 2009 and 4th Edition 2012).

e. Regional Coordinating Unit for the European HELP basins

- There is a lack of strategic leadership in development of the regional HELP network. The Regional coordination at European level was observed to be largely absent. Most engagement with HELP Basins was in the form of the Centre contacting Basins for information by email and request forms. The Centre took the initiative to create a LinkedIn group for IHP-HELP, which could evolve to a website for European HELP Basins.
- Funding constraints were presented by the Centre as a reason for lack of activity as a Regional Coordination Unit. Another reason presented by the Centre was lack of clear guidance from the HELP programme.
- At a national level, the Tweed was successfully established as a HELP Basin, consistent with the UNESCO-Centre agreement. However, branding of the “Tweed Forum” as a HELP basin has been rather weak.

f. Substantiation by partners

- Partners confirmed positive outcomes to the international water law framework, particularly regarding an operational strategy for transboundary waters, promoting cooperation in international basins, through promoting political dialogue, improving regulatory tools, delivering intensive courses etc (GWP and others).
- There was recognition that the Centre was building academic degrees (LLM and MSC) and contributing to broader curriculum in water sciences, based in an interdisciplinary approach (UNESCO-IHE).
- Supportive activities to raise awareness, improve knowledge and understanding of international water law and the UN Watercourses Convention was recognised (WWF).
- Partners from the UK reinforced the importance of joint projects focussing on flood management, bringing together science, management and stakeholder interests, and promoting cooperation with local partners and the Scottish Government. Positive contributions to enhancing science-policy links regarding forest-water interactions in China were also acknowledged (Chinese Academy of Forestry).

- The Centre's work was showcased in the UK and internationally (particularly Sweden, Denmark, Canada and New Zealand), including engagement of the Tweed Forum.
- In general, several partners acknowledged the capability of the Centre in terms of potential further work towards applied studies, knowledge into practice and transdisciplinary approaches. The role of the Centre in co-organising regional focused workshops bringing in principles from international water law frameworks is appreciated. Perspectives of development of regional water laws contributing to conflict solving and problematic transboundary issues, contributing to water diplomacy are particularly valued by some partners (Iran RCUWM).

5. Summary of Findings

Regarding the main objectives of this review that were referred in the section 2.2 (Justification of this Review), and which are to assess performance of the International IHP-HELP Centre for Water Law, Policy and Science with respect to its terms of reference and contributions to the UNESCO mandates and its Strategic Programme Objectives (SPOs), a summary of the findings presented above can be structured in order to respond to those main questions (objectives):

a. Relevance to UNESCO's medium-term priorities

- The Centre operates under the auspices of UNESCO and is part of the HELP which is cross-cutting Programme under IHP VII. Established in 1999, HELP addresses the core themes of UNESCO's International Hydrological Programme by establishing a global network of basins to improve the links between hydrology and the needs of society. It uses hydrological science to support improved integrated catchment management and ameliorates the complex relationships between hydrological processes, water resources management, ecology, socio-economics and policy-making. The Centre acts as the Regional Coordinating Unit for the 20+ European HELP basins.
- The Centre undertakes a wide breadth of research and consultancy recognizing that if water law is to effectively implement IWRM (part of present IHP VII and future IHP VIII programs) and help the international community reach international development targets three essential elements must be considered: water rights, frameworks for allocation, and institutional mechanisms.

b. The Centre's achievements against the four objectives established by the 2008 Agreement

- With regards to promoting an interdisciplinary approach to addressing global water issues, the evaluation team found that the Centre is making a contribution to the international, national and transnational water law framework
- With regards to providing intellectual leadership on international water law, the evaluation team found a consensus from Partner interviews that the Centre has built a presence within the global water-concerned community
- With regards to communicating legal expertise on global water issues for the HELP Programme, the evaluation team found only limited contributions, with existing but weak links and irregular production and dissemination of material.
- With regards to acting as a Regional Coordinating Unit for the European HELP basins, the evaluation team found that this role was largely absent, with a lack of strategic leadership and proactivity.

c. Level/capacity of networking (within the UK and the HELP network)

- There is evidence of networking capacity, with human and budgetary resources available to be allocated. However, strategic focus on networking and engagement in the HELP network has been minimal, mainly limited to online engagement (LinkedIn) and emails.
- National engagement with the UK research community is not strong and is primarily occurring through the “UK Committee for National and International Hydrology”. There is regular reporting of Centre’s activity on HELP, but limited or no feedback on wider HELP regional coordination and network issues.

d. Results achieved

- The Centre has built several strategic links with relevant partners, such as GWP and WWF. Inside UNESCO cooperation has been developed with other centres, including UNESCO-IHE (Netherlands), RCWUM (Iran), ICHARM (Japan) and Hydroex (Brazil). Linkages to other UN organizations include WMO, UNEP, UNU. A list of key institutional partners is presented in Annex 3.
- The Centre has successfully developed academic programmes (Masters and PhD) including broader degrees (LLM and MSc) with an interdisciplinary approach jointly with UNESCO-IHE. Some graduates of these courses are now placed in key governmental positions; a detailed listing of positions held by former graduates is provided in Annex 5.
- The Centre has successfully contributed to and has lead research publications on topics related to water law, selected water sciences and policy issues (eg water security, PCCP, project outputs). A list of publications is at Annex 6, organized by IHP themes. The Centre also made contributions to important global water reports, such as the 3rd and 4th World Water Development Report including co-chairing the Legal Experts Panel.
- The Centre has a high rate of success (50%) in proposals and has received EU funding for research and teaching projects totalling £2.6M.
- Regarding dissemination activities within the HELP network, the Centre has created a LinkedIn group which is showing potential to be a useful means of communication, potentially for the whole HELP network.

e. Funding details and mechanisms for securing funds

- A total of £7.5M has been provided over the life of the Centre to date, comprising £1.7 M from the Scottish Government over 5 years, £3.2M in support funding by UOD and £2.6M in targeted research and academic funding. Conditions offered by the Scottish Government are duly reflected in the revised business plan (Annex 8). The UOD has committed future funding of £5M of five years subject to renewal of the UNESCO Centre, as noted in Annex 7.

6. Recommendations

The Evaluation Team duly compiled all the findings of its work and concluded that the recommendations could be grouped into three categories, each addressing a different audience. The Evaluation Team considered this to be an approach through which UNESCO and University of Dundee can determine whether significant implementation by each target audience has taken place. Arguably, these recommendations could also serve the basis of a future evaluation of similar nature.

Recommendations to the Centre:

- 6.1. *Visioning at the Centre:* The Centre Director and team need to invest time in developing a clear vision for the Centre. Such a vision should address the mandate provided by UNESCO to the Centre. In particular, it should provide some focus on sharpening the science-policy-law nexus and clarifying how “science” should fit into the larger equation. An output of this visioning exercise should also be a medium-term strategic plan that covers the next five years.
- 6.2. *Application of RBM Approach:* The Centre should adopt its activities under Results-Based Management (RBM) approach. Implementation of such an RBM approach means inclusion of a logical framework for each project and activity that describes the anticipated output, outcomes and impact while also identifying indicators for measuring success and listing out risk and assumptions. The RBM framework for the Centre should be closely linked to the visioning and strategic planning process. We further recommend that the Centre should report back to UNESCO in 2 years on RBM implementation and achievement of outcomes.
- 6.3. *Branding for the Centre:* There is a need for making a greater effort needed for branding of the Centre. This should inter alia include the designing and usage of a logo or a visual identifier; such a logo should clearly show HELP and UNESCO linkages, and should be used in all presentations and materials.
- 6.4. *Development/dissemination of policy-focused products:* The Centre should invest more in knowledge exchange, including production of policy-briefs and short synthesis documents (methodological or other), to disseminate within the network of partners and the HELP basins network. This will help strengthen the image, profile and impact of the Centre in the areas of International Water Law and linkages with water policy.
- 6.5. *Greater Connectivity Amongst Projects:* The Centre needs to invest in creating cross-linkages across projects. Such horizontal links can amplify the impact and create synergies within the research team. This should be facilitated through a mechanism for information sharing and cross-dissemination across project boundaries. The visioning and strategic planning process should also give due consideration to fostering such linkages, particularly as new projects and initiatives are designed.
- 6.6. *Regional Networking for HELP:* The Centre should put greater emphasis on regional networking, particularly within the HELP framework. A key way of achieving this is through the use of the HELP network for academic programmes and graduate students, as well as for identifying research partners. In an operational sense, the Centre should clearly allocate staff responsibilities for networking and that should be coupled with allocation of adequate funds.

Recommendations to the Centre's Governing Board

- 6.7. *Review of Implementation:* It is anticipated that the Governing Board will continue its core function of reviewing the Centre's work and providing strategic guidance. We recommend that it also incorporate Recommendations 6.1 through 6.5 in its assessment of the Centre's programme of work.
- 6.8. *Utilize the RBM framework:* Once developed and implemented by the Centre, the RBM framework at the institutional and project level should serve as a primary tool for monitoring success of the Centre.
- 6.9. *Relationship with UNESCO's Strategic Priorities:* The Governing Board should give ample consideration to ensuring that the Centre's programme of work is in line with its mandate as a UNESCO Category II Centre as well as UNESCO's strategic priorities. It is understandable the UNESCO's strategic priorities evolve and change over time; these should be conveyed to the Board on a routine basis because UNESCO representative sits in the Board. The terms of the agreement between UNESCO and the UK Government also provide a backdrop for such an analysis.

Recommendations to UNESCO

- 6.10. *Continuation of the Centre:* In view of our analysis, the Evaluation Team recommends that the Centre be renewed as a UNESCO Category II Centre. The Centre has demonstrated its strength, which has been corroborated by its institutional partners, and implementation of the Recommendations 6.1 through 6.5 should strengthen the Centre considerably. This should be implemented in the form of renewal of the general agreement for the IHP-HELP Centre.
- 6.11. *Feedback to the Centre:* UNESCO needs to make a stronger effort in providing clear, strategic feedback and guidance to the Centre. In particular, as the HELP network evolves or gets merged with other UNESCO mechanisms, the Centre should be kept abreast of these changes and how they impact expectations the UNESCO places on all Category II Centres.
- 6.12. *Guidance Regarding the Role and Expectations of the RCU:* UNESCO should provide some clear and detailed guidance to the Centre about how it should link up with the RCU and what activities in the European networking context would work best.

7. ANNEXES

7.1 Annex 1 Agenda for the Visit by the Evaluation Team

UNESCO Category II Status Renewal Outline Programme

5th / 6th December 2011

Venue: Centre for Water Law Boardroom, Peters Building, University of Dundee

UNESCO Evaluation Team:

Professor Siegfried Demuth, Dr Zafar Adeel, Dr Susana Neto

In attendance:

Observer from UK National Commission for UNESCO

5th December 2011

09:30	Private meeting of the Evaluation Team	
10:30	Welcome, Introductions and Overview	Ian Ball
10:45	Presentation of Executive Summary To make links to UNESCO's IHP priorities and MDGs, and links to IHP and UNESCO Centres	Patricia Wouters
11:10	Discussion with Research Project Principal Investigators To make links to needs and issues of target groups and to make links to the science, policy, law nexus. Also show evidence of identified changes attributable to the activities of the Centre (Impacts)	Alistair Rieu-Clarke, Andrew Allan, Geoffrey Gooch
11:45	Discussion with Masters Programme Leaders To make links to the development and delivery of education and training relating to water resources management and the MDGs.	Sarah Hendry, Chris Spray
12:15	Meeting with Governing Board Representative. To provide a critique of the working relationships with UNESCO and other partners	John Francis
12:35	Meeting with Tweed Forum representatives To make links to the Tweed basin as a HELP basin for research and training and to emphasise the science, policy, law interface.	Chris Spray. Alan MacDonald (BGS), Tweed Forum Representative

13:00	Lunch	
14:00	Private meeting of the Evaluation Team	
14:30	Open discussion	Lead by the Evaluation Team
16:30	Demonstration of evidence of knowledge exchange. To make links to global research dissemination, networking events with IHP-HELP community, and evidence of acting as regional coordinating unit for the European HELP basins.	Daniel Gilbert
17:00	Ends	
19:00	Dinner at University House	

6th December 2011

09:00	Videolink with New Zealand To make links to needs and issues of target groups and to make links to the science, policy, law nexus	Andrew Fennemore
09:30	Videolink with Norway To make links to needs and issues of target groups and to make links to the science, policy, law nexus	Per Stalnacke
10:00	Meeting with PhD students To make links to the think-tank new ideas / new approaches to address global water problems	
10:30	Meeting with University and School Senior Management Team To make links to SFC and UoD funding streams and sustainability and organisational management. Make links to the degree of the functional autonomy of the Centre within the School/University	Principal, Professor Pete Downes VP and Head of College, Professor Chris Whatley Dean of School, Ian Ball
11:30	Private meeting of Evaluation Team	
12:30	Feedback to University / Centre	
13:00	Lunch	
14:00	Depart	

7.2 Annex 2

Findings - Complementary notes from Partner's consultation by email

Regarding the 4 questions sent by e-mail to a list of 13 Partners (Annex 3- List of Partners consulted by e-mail between December 21st and 10th January), the Evaluation Team received 7 Partners answers, listed next.

At the end of each Partner answers, it is presented a short note on the ‘ *Substantiate claims of partnership and demonstrating strong(er) partnerships* ’.

• GWP

(John Metzger: john.metzger@gwpforum.org and Ania: aitkadi.med@gmail.com)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

The UNESCO IHP-HELP Centre at Dundee have engaged with GWP in a number of valuable ways:

- *Pat Wouters has made a great personal contribution through serving on the GWP Technical Committee since 1 January 2008, resulting in several publications, and is also involved in practical transboundary issues in a number of GWP Regions, notably Central Asia.*
- *Dundee Centre supported a political dialogue on Transboundary Issues in Central Asia under which high ranking policy makers from 5 Central Asia countries together with GWP CACENA experts attended workshops in Dundee (in 2005).*
- *GWP and the Dundee centre together have launched the International Water Law Scholarship for a summer school for young water leaders – established in 2010. This will continue this year and in the future due to great demand. See: <http://www.gwp.org/gwp-in-action/News-and-Activities/Water-Law-Scholarship-Programme-for-GWP-Partners/> and <http://www.dundee.ac.uk/water/workshop/>*
- *The Dundee Centre contributes to the GWP Toolbox by reviewing the tools relevant to legal frameworks and regulatory instruments.*
- *Pat contributed to the development of GWP’s operational strategy on transboundary waters.*
- *The Dundee Centre has become a support base partner of the WMO/GWP Associated Programme on Flood Management, giving support on the legal and institutional aspects of integrated flood management.*

2. Has the UNESCO Centre contributed significantly to your work?

The most significant contribution has been the development of the GWP transboundary waters strategy – this has encompassed a number of dimensions, including the forthcoming Handbook on Transboundary River Basin Management, engagement with GEF, and the training of young leaders from transboundary basins worldwide, and continues to inform GWP’s actions in this thematic area of our work.

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

We’re looking to continue to work with the Dundee team to:

- *more clearly define GWP’s focus in facilitating transboundary cooperation.*

- more involvement with Dundee on national water law, and how the process of integrated water resources management can be supported and implemented by legal reforms at national /federal level.
- Dundee could also become involved as a support base partner in a new WMO/GWP programme being developed on Integrated Drought Management, modeled upon the Flood Management Programme.

4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

GWP rates the reputation of the Dundee Centre highly. The Centre has certainly made a great contribution to the international water law community

GWP - Substantiate claims of partnership / demonstrating strong(er) partnerships

- ***Reported positive outcomes through this partnership mainly based upon the contribution from Patricia Wouters, to the international water law framework, particularly regarding an operational strategy for transboundary waters .***
- ***Support to GWP regarding strategic areas of cooperation in international basins, through promoting political dialogue, improving regulatory tools, delivering intensive courses, etc.***

• UNESCO IHE

(Pieter van der Zaag, PhD, MSc - p.vanderzaag@unesco-ihe.org)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

We have developed a unique collaborative programme under the aegis of UNESCO on water conflict management, involving UNESCO, namely its PCCP programme, the UNESCO IHP-HELP Center on Water Law, Policy and Science at Dundee University, and UNESCO-IHE. This collaborative programme allows postgraduate students from both the UNESCO IHP-HELP Center on Water Law, Policy and Science and UNESCO-IHE to follow a joint curriculum for a significant part of the course work and where both groups of students finalise their course work and (mini)thesis requirements at Dundee and Delft, respectively, and subsequently obtain an LLM degree from Dundee University or an MSc degree from UNESCO-IHE.

This set-up has proven a very efficient way of offering a unique and broad curriculum on water science, water law and water negotiation and diplomacy to groups of water professionals with a diversity of disciplinary backgrounds (engineering, environmental science, law, social science, political science, international relations, and others) and nationalities (all continents have been already been represented!) within the same class. This has enabled interdisciplinary understanding and mutual learning between students.

The programme has started in Fall of 2008, the first students graduating in Spring 2011. So far 6 students have finalised the programme (4 at Dundee and 2 at UNESCO-IHE). The student evaluations have been very positive. Student numbers are fast increasing, from 2 students enrolling in 2008, 4 enrolling in 2009, and 9 students enrolling each year since 2010.

Arguably the strongest point of this collaborative effort has been that this consortium under the umbrella of UNESCO has been able to attract world class and top academics and trainers to teach in this programme, enhancing the reputation of the programme and our respective institutions. This collaborative programme is thus a fine example whereby UNESCO effectively cooperates with a category 1 and a category 2 institution, creating clear synergies.

2. Has the UNESCO Centre contributed significantly to your work?

Yes, clearly and definitely! It has attracted law professionals to follow coursework at UNESCO-IHE who otherwise would not have done so. This is for UNESCO-IHE a very tangible and valuable contribution.

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

Yes. (1) We would like to expand the opportunities for joint supervision of Master students by staff from the UNESCO Centre and ourselves, both for postgraduate students registered with Dundee and with UNESCO-IHE. (2) It would be very beneficial if we could develop some joint research programmes involving some jointly supervised PhD students and to which also our postgraduate students would contribute during the thesis research or in the form of secondments.

4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

The UNESCO Centre has in my view an excellent reputation and is known worldwide for its expertise on transboundary water issues both in terms of the legal and institutional dimensions. The Centre thus makes a valuable contribution to this essential global good that is knowledge and transboundary water management.

UNESCO IHE - Substantiate claims of partnership / demonstrating strong(er) partnerships

- ***Partnership supporting the building of common academic degrees (LLM and MSC)***
- ***Joint work towards a broader curriculum in water sciences, based in an interdisciplinary approach.***

- **WWF**

(Flavia Rocha Loures - flavia.loures@wwfus.org)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

We started off, back in 2006, as ad hoc partners collaborating on an ongoing basis on common goals through a series of activities, e.g., convening joint events, developing policy papers and publications, etc. More recently, we were able to formalize our partnership under a formal contract funded by the Norwegian Government. Under this contract, the Centre is producing a number of tools and studies, including co-editing an Earthscan publication – all of which will greatly contribute to the goal of improving knowledge, understanding and awareness of the convention and the role of international water law in supporting transboundary water cooperation.

2. Has the UNESCO Centre contributed significantly to your work?

Yes, they have, in particular by providing critical technical support for the WWF initiative to raise awareness and understanding of international water law in general and the UN Watercourses Convention in particular.

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

The Centre covers a wide array of issues pertaining to water law, policy and science, always keeping up with emerging challenges and developing new approaches and perspectives. The question is not so much what additional areas of work to consider, but whether the Centre can add new work to its current portfolio without increasing staff. In this sense, increased funding for PhD students that could support staff and gain from the experience with the Centre would be surely of great value. WWF's experience with the

Centre's students has been wonderful and we'd welcome more investments in educating the next generation of water leaders. This would be in line with both UNESCO's and the Centre's missions and goals.

4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

Excellent on all accounts: its renowned staff and exceptionally qualified students, the quality of the work provided, and the efficiency with which they respond to requests.

WWF - Substantiate claims of partnership / demonstrating strong(er) partnerships

• ***Supporting WWF initiatives to raise awareness, improve knowledge and understanding of international water law in general and the UN Watercourses Convention in particular.***

• ***TWEED FORUM***

(Luke Comins - luke.comins@tweedforum.com)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

Engagement has come on many fronts – through one to one meetings with UNESCO staff, assistance with addressing key knowledge gaps, setting up of relevant research projects, participation in key brainstorming events and international networking events, input to the Forum's Steering Group, joint working on funding bids, presentations to UNESCO centre students etc.

2. Has the UNESCO Centre contributed significantly to your work?

The UNESCO Centre has contributed to many areas of Forum work, However, the main contribution concerns the Eddleston Water Project – a partnership project to examine the benefits of restoring rivers and associated habitats with a particular focus on flood attenuation facets. See <http://www.tweedforum.org/projects/current-projects/eddeleston> - for more details. Eddleston focuses on bringing together the science evidence base from a number of different disciplines, and relating this to real management and stakeholder interests on the ground (through working through Forum and other partners). The Centre has actively promoted the work of Tweed Forum (i.e. the approach we take, the integrated nature, Catchment Management Planning, stakeholder participation, etc) as best practice in other fora, symposia, conferences, publications and with UNESCO HELP basins elsewhere

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

Due to the fact that the Centre is now on our steering group (through Prof Chris Spray), the Centre now inputs to many areas of our work and is well placed to seize new opportunities and integrate further.

4. How would you rate the UNESCO Centre overall in its reputation and contribution

The Centre has given us the opportunity to network at a level that we had not previously enjoyed. The recent Insight workshop with the Motueka and Fraser rivers was particularly relevant and rewarding. More recently the Forum has engaged with river managers in Sweden and Denmark and (through Chris Spray) also participated in the conference in Panama. Tweed Forum actively engages with policy makers to improve environmental legislation and the Centre has been most useful in helping us with the evidence base to lobby effectively.

Tweed Forum - Substantiate claims of partnership / demonstrating strong(er) partnerships

- ***Project developed in partnership with focus on flood attenuation facets, bringing together the science evidence base, the real management and stakeholder interests, promoting also cooperation with other local partners and Scottish Government.***
- ***This partnership is enhancing engagement of the Tweed Forum at international level.***

- **SCOTTISH GOVERNMENT**

(Debi Garft - debi.garft@scotland.gsi.gov.uk)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

- i) through the Eddleston Water project. The Scottish Government is the main funder of this project and sees it as a longer term commitment to gather valuable data to trial natural flood management measures. The Centre is the main contractor and project management is provided by the Tweed Forum.*
- ii) through a recent research initiative set up and funded by the Scottish Government called CREW (the Centre for Research Expertise on Water).*
- iii) staff at the Centre have also members of national level advisory groups set up by the Scottish Government.*

2. Has the UNESCO Centre contributed significantly to your work?

Very positive response: "Centre provide excellent and trusted advice and expertise at national level advisory groups set up by the Scottish Government"

- i) contributed to developing national policy on sustainable flood management and advising the Government on transposing the EC Flood Directive into Scots law in 2009 (Profs Alan Werrity and Chris Spray)*
- ii) improved scientific evidence to support the implementation of natural flood management measures in Scotland (work is essential to the Government's commitment to encourage local authorities in Scotland to consider these measures as part of a more sustainable approach to flood risk management; project is also about partnership working across agencies and engaging with land owners and communities and it demonstrates how an integrated catchment management approach brings multiple benefits.*
- iii) has taken the opportunity to showcase the work on the Eddleston Water within the rest of the UK and internationally - most recently Sweden, Denmark, Canada and New Zealand.*

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

- i) continuing its commitment to helping improve the scientific evidence for implementing natural flood management.*
- ii) collecting reliable data and ability to demonstrate the effectiveness of these measures on the ground.*
- iii) taking a role in disseminating findings from the project to the next generation of engineers, hydrologists, farmers, land manager and householders.*

4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

" The UNESCO Centre at Dundee is very highly rated at the Government. The opinions of the staff are well respected by other members of the national advisory flooding groups. The Centre has contributed significantly to water management issues in Scotland and in particular to legislation and policy development of flood risk management. It is the cross disciplinary working between scientists, geographers and law academics that makes Dundee a leader in its field along with the recognition of UNESCO that underlines their international profile which is much valued by Scottish Government."

Scottish Government - Substantiate claims of partnership / demonstrating strong(er) partnerships

- **Reported very positive outcomes through this partnership in the legal framework, as well as in providing scientific evidence and policy development of flood risk management in Scotland.**
- **Opportunity to the Centre taking a role in disseminating findings from the project.**
- **Showcase the work within the rest of the UK and internationally (Sweden, Denmark, Canada and New Zealand)**

• **Chinese Academy of Forestry**

("Wang Yanhui" wangyh@caf.ac.cn)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

Through Mike Bonell

2. Has the UNESCO Centre contributed significantly to your work?

Positive response in general terms, though very focused in one person contact only (Mike Bonell). Also referred a "positive influence on the science and policy of the forest-water interaction in China", that promoted "some new research projects established at governmental level, with the aims of understanding and quantifying the forest-water interrelation and searching for a practical approach of integrated forest-water management."

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

Referred a need for "Identification and description of the general processes how to improve or make the law and policy related with water-management based on the transdisciplinary scientific and applied studies/knowledge, with some typical and representative examples over the world.", and looking at "water management in a multipurposed and sustainable watershed/environment management."

4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

Rated as having a "leading role and contributed well to the international water community and particularly in water law issue", and being " characterized by its transdisciplinary, practical and results-focused study."

Substantiate claims of partnership / demonstrating strong(er) partnerships - Chinese Academy of Forestry

- **Reported a positive influence through this partnership in the science and policy of the forest-water interaction in China, from which arise some new research projects.**

• ***Acknowledged capability of the Centre in terms of further joint work towards applied studies/ knowledge into practice and transdisciplinary approaches.***

• **RCUWM Tehran Centre**

(Homayoun Motiee (Ph.D.) - motiee@rcuwm.org.ir;
Alireza Salamat: a.salamat@rcuwm.org.ir)

1. What has been the key mode of engagement of CAF with the UNESCO Centre?

The key mode was actually a Memorandum of Understanding signed and exchanged between the 2 Category II Centres for holding joint training events and projects. As a first attempt an international workshop/symposium was held in close cooperation with Dundee UNESCO Centre in Dundee, Scotland on International Laws and Trans boundary Fresh Water in June 2010. This was actually a good starting point. Worth noting that an international workshop on International Water Law: General principles, with a focus on Iranian regional issues was subsequently held in Kish Island, I.R. Iran with the presence of DUNDEE UNESCO Centre's professionals for around 50 Iranian experts and decision makers.

2. Has the UNESCO Centre contributed significantly to your work?

Yes it has significantly contributed by :

- a) Providing eminent resource persons*
- b) Financially supporting the joint event in Dundee*
- c) Providing training facilities in Dundee University*

3. Are there additional areas of work/research where you would like the UNESCO Centre to further lead and/or contribute?

Yes we would also prefer working with Dundee UNESCO Centre for co-organizing regional workshops and symposiums on Water Laws which we deem very much needful to be submitted for relevant water related entities. We also look forward to carrying out a joint project on Water laws in the region which could very much contribute to solving conflicts and problematic issues on trans boundary water issues between upstream and down stream countries.

4. How would you rate the UNESCO Centre overall in its reputation and contribution to the international water community, particularly in water law issue?

I would rate it excellent due to its vast cooperation with our Centre and its strong networking facilities.

Substantiate claims of partnership / demonstrating strong(er) partnerships - RCUWM

- ***Co-organization of regional focused workshops bringing in principles form in international water la framework.***
- ***Perspectives of development of regional water laws contributing to conflict solving and problematic transboundary issues.***

Partner's consultation by email - Summary of main findings

According with reported answers, existing partnerships are contributing to:

- **Implementation of an operational strategy for transboundary waters (GWP);**
- **Academic broader degree (LLM and MSc) with interdisciplinary approach (UNESCO-IHE);**
- **Knowledge base improvement and awareness regarding international water law (WWF);**
- **Improving the science – policy links in flood management (Scotland) and forest-water interaction (China);**
- **Water diplomacy (Iran).**

No responses:

- **James Cook University** _____
Marc LeBlanc - Marc.LebLANC@jcu.edu.au
Steve Turton - steve.turton@jcu.edu.au

- **Newcastle University** _____
geoff.parkin@newcastle.ac.uk
james.bathurst@newcastle.ac.uk
p.f.quinn@newcastle.ac.uk

- **Hidroex UNESCO Centre (Brazil)** _____
Igor Tameirão - igortameirao@yahoo.com.br
Rodrigo Portugal - rsallesp@terra.com.br

- **British Geological Society** _____
Alan Macdonald - amm@bgs.ac.uk

- **IIT Roorkee** _____
Prof. Nayan Sharma, Ph.D. - nayanfwt@gmail.com , nayanfwt@iitr.ernet.in

- **Centre for Ecology and Hydrology (UK)** _____
Alan Jenkins - jinx@ceh.co.uk
Harry Dixon - harr@ceh.co.uk

PARTNERS

KEY PARTNERS

- UNESCO IHE
- UNU
- World Wildlife Fund
- BioForsk, Norway
- Environmental Law Centre, IUCN
- Council for Scientific and Industrial Research, South Africa
- Global Water Partnership
- Bioforsk
- University of Southampton
- IIT Roorkee
- University of Birmingham
- University of Linköping
- Scottish Government
- British Geological Survey
- The James Hutton Institute
- Tweed Forum
- Scottish Environment Protection Agency SEPA
- SNH
- India: Natural Environment Research Council
- India: The Federal Govt. Ministry of Environment and Sciences,
- India: ATREE (Ashoka Trust for Research in Ecology and the Environment, Bangalore;
- India: National Institute of Hydrology
- Chinese Min of Environment; The Chinese Academy of Forestry (Beijing)
- University of Western Australia, James Cook University
- University of Abertay
- Stirling University
- Durham University
- Newcastle University
- University of York
- Nottingham University
- Carnfield University
- Environment Agency (EA)
- Department for Environment and Rural Affairs (Defra)

- RELU
- Demonstration Test Catchments
- Scottish Natural Heritage (SNH)
- Natural England
- British Geological Survey
- Scottish Borders Council
- National Farmers Union (Scotland)
- Tweed Foundation
- James Hutton Institute
- Motueka HELP Basin
- Dee HELP Basin
- Fraser Basin Council
- RSPB

PROJECT PARTNERS (listed by project)

UN Watercourses Convention Global Initiative

- World Wildlife Fund

We have also collaborated with a wide range of governments, international organisations, etc. either as ad hoc consultants, workshop participants, key contact points, etc, for example:

- African Water Issues Research Unit, South Africa
- Green Cross International
- Hatfield Consultants, Canada
- Global Water Partnership – West Africa
- Ministry of Water and Energy, Ethiopia
- See “individuals and institutions that have already vowed to support the UN Watercourses Convention Global Initiative” - http://assets.panda.org/downloads/presentation_2011_campaign_dec_2010_1_.pdf

LiveDiverse

- LINKÖPINGS UNIVERSITY
- NATIONAL INSTITUTE OF AGRICULTURAL PLANNING AND PROJECTION
- SOCIETY FOR PROMOTING PARTICIPATIVE ECOSYSTEM MANAGEMENT
- COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
- ESCUELA DE RELACIONES INTERNACIONALES DE LA UNIVERSIDAD NACIONAL
- INSTITUTE FOR ENVIRONMENTAL STUDIES (IVM)
- IHP-HELP CENTRE FOR WATER LAW, POLICY AND SCIENCE (UNESCO)
- INSTITUTE FOR ENVIRONMENT AND SUSTAINABILITY

STRIVER

- Norwegian Institute for Water Research
- Joint Research Centre, Ispra, Italy
- UNESCO Centre for Water Law, Policy and Science, University of Dundee, Scotland
- Institute of Geography, Vietnam Academy of Science and Technology, Hanoi, Vietnam
- Ministry of Water Resources and Meteorology, Cambodia. Partner until July 2007.
- Consejo Superior de Investigaciones Cientificas, Instituto Pirenaico de Ecologica, Zaragoza, Spain
- Centro de Estudos de Hidrossistemas, Instituto Superior Técnico, Technical University of Lisbon, Portugal
- The Centre for Development and the Environment University of Oslo, Norway
- Institute for Social and Economic Change, Bangalore, India
- Society for Promoting Participative Ecosystem Management, Pune, India
- Centre for Development Research, Bonn University, Germany
- LiU School of Management, Linköping University, Sweden
- Water Research Institute - National Research Council, Italy
- Norwegian Institute for Agricultural and Environmental Research (BIOFORSK)

International Architecture for Transboundary Water Management

- Department for International Development, United Kingdom
- World Wildlife Fund, United Kingdom
- Pegasys, South Africa

ESPA Deltas project:

- University of Southampton
- University of Oxford
- University of East Anglia
- National Oceanography Centre
- Plymouth Marine Laboratory
- Hadley Centre, Met Office
- East China Normal University
- Bangladesh University of Engineering and Technology
- Centre for Environmental and Geographical Information Services, Bangladesh
- Bangladesh Agricultural University
- ASA University Bangladesh
- International Centre for Diarrhoeal Disease Research
- TARA, Bangladesh
- Ashroy Foundation, Bangladesh
- Aaranyak, India

- IIT Roorkee
- University of Jadavpur, India

Genesis:

- University of Oulu, Finland
- Technical University of Valencia
- BIOFORSK, Norway
- Joanneum Research, Austria
- ETH, Switzerland
- Luleå University of Technology, Sweden
- University of Bucharest, Romania
- GIS, Czech Republic
- Institut National de la Recherche Agronomique, France
- ALTEIRA, Netherlands
- Helmholtz Zentrum München, Germany
- EAWAG, Switzerland
- AGH University of Science and Technology, Poland
- Università Cattolica del Sacro Cuore, Italy IGEM, Turkey
- Democritus University of Thrace, Greece
- Cracow University of Technology, Poland
- University of Neuchâtel, Switzerland
- University of Bologna, Italy
- Athens University of Economics and Business, Greece
- University of Manchester
- University of Zagreb, Croatia
- Helmholtz Centre for Environmental Research, Leipzig, Germany
- Swedish Meteorological and Hydrological Institute

ACQWA:

- University of Geneva, Switzerland
- Agroscope, Switzerland
- ETH, Switzerland
- Abdus Salam International Centre for Theoretical Physics, Italy
- ARPA Piedmont, Italy
- Agenzia Regionale per la Protezione dell'Ambiente della Valle d'Aosta,
- Institute of Atmospheric Sciences and Climate, Italy
- University of Natural Resources and Applied Life Sciences, Austria
- Institute of Water Problems and Hydropower, Kyrgyz National Academy of Sciences, Kyrgyzstan
- Centre for Advanced Studies in Arid Zones, Chile

- Centro de Estudios Scientificos, Chile
- Centre d'Etudes de la Neige, France
- Instituto Torcuato Di Tella, Argentina
- CESI Ricerca SpA, Italy
- University of L'Aquila, Italy
- Laboratoire d'Etude des Transferts en Hydrologie et Environnement, France
- Laboratoire des Sciences du Climat et l'Environnement, France
- Monterosastar S.r.l., Italy
- Max Planck Institute for Meteorology, Hamburg
- Gran Paradiso National Park, Italy
- Politecnico de Milano, Italy
- University of Bern, Switzerland
- University of Birmingham
- Graduate Institute of International Studies and Development, Switzerland
- Centre National de Recherche Scientifique, France
- Laboratoire de Glaciologie et Geophysique de l'Environnement, France
- University of Graz, Austria
- Compagnie Valdotaïne des Eaux, Italy
- ENEL SpA, Italy
- Pyrenean Institute of Ecology, Spanish National Research Council

Brahmatwinn:

- Friedrich Schiller University, Germany
- Ludwig Maximilian's University, Munich, Germany
- ETH Zurich
- University of Salzburg, Austria
- University of Vienna, Austria
- University of Southampton, UK
- University of Oslo, Norway
- IIT Roorkee, India
- ICIMOD, Nepal
- Royal University of Bhutan, Bhutan
- Institute of Tibetan Plateau Research, China
- Centre for Agricultural Resources Research, China,
- Vodni Zdroje a.a., Czech Republic
- Johann Wolfgang Goethe University, Frankfurt, Germany

Lagoons:

- University of Aveiro

- Bioforsk- Norwegian Institute for Agricultural and Environmental Research
- Institute of Hydro-Engineering of the Polish Academy of Sciences
- Atlantic Branch of P. P. Shirshov Institute of Oceanology of Russian Academy of Sciences
- Sea Fisheries Institute in Gdynia
- University of Dundee
- Odessa State Environmental University
- Potsdam Institute for Climate Impact Research
- Universidad de Murcia

Scottish Customer Forum:

- Water Industry Commission
- Scottish Water
- SEPA
- Consumer Focus (Consumer Council for Scotland)

Carnegie Grant: *active UK and Irish HELP basins:*

- Tweed
- Dee
- Don
- Eden
- Thames
- Welland
- Oona / Blackwater

AD HOC PARTNERS

- CEH Edinburgh
- CEH Wallingford
- British Waterways Scotland
- CBEC Eco-engineering
- Scottish Wildlife Trust
- New York State Department of Health/Catskills Watershed
- Scottish Water

For WWF6 and beyond we are working on, Priority Action 1.5 “Contribute to cooperation and peace”, Target 1.5.1 “Increase the political acceptance and implementation of the principles of existing international, regional and local water law in the international community”, with:

- Green Cross International
- Nile Basin Initiative
- Nile Basin Discourse
- University of Cork

- Global Water Partnership
- IUCN
- UNESCO PCCP
- UNECE

As part of this group we co-convened a session at Stockholm World Water Week with:

- IUCN
- GWP
- UNESCO PCCP
- WWF
- Swiss Agency for Development and Cooperation

We also plan to co-organise an event at the IUCN World Water Congress related to this theme and involving the above-mentioned partners with:

- IUCN
- WWF
- University of Cork

In addition to project partners, we have engaged with a large number of stakeholders through project workshops, focus groups, interviews, etc. Below is an indicative list of stakeholders that we engaged with through the course of our STRIVER research in the Tagus River Basin (Spain and Portugal), and Sesan (Vietnam and Cambodia):

- Amy Trandem, 3SPN;
- Choomjet Karnjanakesorn, Water Utilization Programme, MRC;
- Christoph Mor, MRC; Eric Tilman, Asian Development Bank (ADB);
- Estela Estoria, Mekong River Basin Management, East Asia Regional Office, Oxfam America;
- Kim Sangha, 3SPN;
- Mak Sithirith, FACT; Ngy San, NGO Forum on Cambodia;
- Sin Niny, CNMC, Member of MRC Joint Committee for Cambodia;
- So Im Monichoth, Department of Hydrology and River Works, MOWRAM;
- So Nam, Inland Fisheries Research and Development Institute (IFReDI);
- Srun Lim Song, IFReDI;
- Tep Bunnarith, CEPA; Theng Tara, Department of Water Resources, Management and Conservation, MOWRAM;
- Vong Kongkea, Water Resources Management, CEPA;
- Wolfgang Schiefer, International Cooperation and Communication Section, MRC;
- Xiao Zi, Mekong River Basin Management, East Asia Regional Office, Oxfam America;
- Yen Run, CEPA. António Brito, Administração da Região Hidrográfica do Norte I.P.;
- Gonçalves Henriques, Portuguese Environment Institute, Water Institute;
- Isabel Raposa, Portuguese Environment Institute;

- João Joanaz de Melo, Department of Environmental Science and Engineering, New University of Lisbon;
- João Avillez, Instituto da Água;
- Luisa Schmidt, Instituto de Ciências Sociais (ICS);
- Margarida Cardoso da Silva, Portuguese Environment Institute;
- Paula Sarmento, Administração da Região Hidrográfica do Alentejo I.P.; Simone Pio, Administração da Região Hidrográfica do Tejo I.P.;
- Susana Neto, Directorate for Spatial Planning and Urban Development;
- Tiago Saraiva, ICS;
- Alberto Garrido, Universidad Politécnica de Madrid;
- Ana Barreira, International Institute for Law and the Environment;
- Antonio Embid, Universidad de Zaragoza;
- Belén Ramos, Consumers and Users Organization;
- José Luis Alonso Gajón, Ebro River Basin Management Agency;
- José María Marcias, Tagus River Basin Management Agency;
- Marta Moren, Ministry of the Environment, Directorate General for Water;
- Miguel Antolín Martínez, Ministry of the Environment, Directorate General for Water;
- Mónica Sastre Beceiro, Ariño & Associates;
- Nuria Hernandez-Mora, New Water Culture Foundation;
- Ramón Llamas, Universidad Complutense de Madrid;
- Ajun But, Women's Association; Dinh Quang Hien, Department of Irrigation;
- Doan Ngoc Co, Provincial People's Committee;
- Ho Mau Long, Department of Natural Resources and Environment;
- Lai Duc Hieu, Management Board of National Park Chu Mom Ray; Le Quoc Giang, Department of Natural Resources and Environment;
- Le Thanh Xuan, Department of Agriculture and Rural Development;
- Le Trung Thong, Institute of Agriculture, Design and Planning, Ministry of Agriculture and Rural Development;
- Lê Văn Chinh, Department of Science and Technology;
- Ly Trong Hiep, Department of Planning and Investment;
- Nguyen Duc Trung, Pleiku Correspondent, Vietnam Radio Station;
- Nguyen Huu Nho, Department of Forestry;
- Nguyen Sy Khoi, Water Resources Management Development, Ministry of Natural Resources and Environment;
- Phan Doãn Khánh, Management Board of Hydropower Projects No. 4;
- Rômô Tôra, Department of Ethnology and Religion;
- Siu Nhat, Department of Foreign Affairs, Provincial People's Committee

PhD Students – Thematics

Musa Abseno

Designing an Analytical Framework for Assessing the International-national Water Law Interface: A Nile Case Study

Mohamad Al Afghani

The Role of Legal Framework in Enabling Transparency in Water Utilities Regulation

Tran Tran

Water is Country, Country is Culture: the translation of Indigenous relationships to water into law

Hugo Tremblay

Legal frameworks for the protection of freshwater ecosystems: A comparative approach to Québec law

Dinara Ziganshina

International Water Law in the Aral Sea Basin: Norms and Processes

Bjorn-Oliver Magsig

International Water Law and the Quest for Common Security

Ana Maria Daza Vargas

The unique nature of water resources and the need for flexible regulation: challenges for international investment

Jing Lee

Environmental protection of international watercourses and the integration of relevant rules

Yumiko Yasuda

NGO Strategies - Variations along the Mekong River

PhD Students – Further involvement

- **Indicative List of Alumni**

Name	Current Position
Sylvester Matemu, LLM	Private Secretary to the Minister, Ministry of Higher Education, Science and Technology, Tanzania
John Nyaro, LLM	Director of Water Resources, Kenya
Jiebin Zhang, LLM	Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
Falko Josef Sellner, LLM	Water law consultant, global
Jeremy Bird, LLM	Currently, private consultant; previously, Chief Executive Officer, Mekong River Commission Secretariat; previously, Coordinator, Dams and Development Project at UNEP.
Teresa Liguori, LLM WPCR	Working with Guatemalan NGO
Ruxandra Lazarescu, LLM	Water law consultant, currently based in London
Brock Gill LLM WPCR	Project manager for IvanCorp in Mongolia, currently working inter alia with Mongolian government at different levels to manage water allocations and ensure community as well as corporate benefits.
Bjoern-Oliver Magsig, LLM, PhD candidate	Moved onto PhD study; currently completing his PhD with us, whilst working on UNWCC project with Dr Rieu-Clarke
Fadia Daibes, PhD	Before her untimely death, Fadia worked for the Palestinian Water Authority, fostering links at professional level across the Palestine – Israeli divide and worked also for numerous charities and aid agencies.
Yadgar Ahmmad, PhD	Currently in London but considering an invitation to take a post as head of law school in Iraq
Desheng Hu, PhD	School of Law, Xi'an Jiaotong University

Patricia Jones, PhD	Manager of Environmental Justice Program of Unitarian Universalist Service Committee, USA
Chad McMurray LLM research	Independent legal consultant
Andreas Charalambous, LLM research	Independent consultant, Hydrolaw; thesis on groundwater rights in press.
Musa Abseno, LLM research, PhD candidate	Previously, at the Ethiopian water Ministry, currently completing PhD studies with us.
Dinara Ziganshina, PhD candidate	Has returned to Uzbekistan and returned to work in the basin, a position kept open for her during her study with us, whilst completing writing up.
Tran Tran, PhD candidate	Has returned to Canberra and obtained a post in a funded research project working on climate change and indigenous rights, whilst completing writing up.
Mova Al'Afgani, PhD candidate	Currently writing up based in Cambodia, intends to return to Indonesia to assist with development of their water services law.
Hugo Tremblay, PhD candidate	Offered post-doc position in Australia but currently in Canada writing up and would prefer to stay in Canada and assist with reform of Quebec water law.

PUBLICATIONS

- P. Wouters, Water Security: Global, Regional and Local Challenges, Institute for Public Policy Research (IPPC) for the Commission on National Security in the 21st Century (2010)
- Water and Sanitation Services in Europe, Policy Makers Guidance Document, Do Legal Frameworks provide for “Good Governance”? IHP-HELP Centre for Water Law, Policy and Science, under the auspices of UNESCO, University of Dundee, Scotland, UK.

STRIVER Policy Briefs

<http://kvina.niva.no/striver/Disseminationofresults/STRIVERPolicyBriefs/tabid/78/Default.aspx>

- Nagothu, U.S., Stålnacke, P. Campbell, D. and Gooch G.D. 2009. Capacity Building Activities in the STRIVER Case Basins. STRIVER Policy Brief No. 20
- Nesheim, I., Berge, D., Nhung, D.K. and Gooch, G.D. 2009. Environmental flow, biodiversity and livelihoods - the causal chain. STRIVER Policy Brief No. 12
- Gooch, G.D. 2008. Communication in IWRM in Transboundary Rivers. STRIVER Policy Brief No. 6
- Rieu-Clarke, A., Allan, A and Magsig, B-O. 2008. Assessing governance in the context of IWRM. STRIVER Policy Brief No. 8
- Gooch, G.D. and Rieu-Clarke, A. 2008. Water Regimes in Transboundary Heavily Modified Rivers. STRIVER Policy Brief No. 2
- Nhung, D.K., Gooch, G.D. and Rieu-Clarke, A. 2009. Strategies and Recommendations for River Basin Management in the Sesan. STRIVER Policy Brief No. 13
- De Almeida, A.B., Portela, MM, Machado, M., Beguería S, Vicente-Serrano, SM., López-Moreno, JI., Lana-Renault, N., García-Ruiz. JM., Campbell, D., & Rieu-Clarke, A. 2009. The Tagus River Basin – Spain and Portugal. STRIVER Policy Brief No. 19
- Campbell, D., Rieu-Clarke, A., Allan, A., Gooch G.D., Nagothu, U.S., Stålnacke, P. 2009. Stakeholder Participation in the STRIVER Project. STRIVER Policy Brief No. 21

- Nesheim, I., Stålnacke, P., McNeill, D., Gooch G.D., Nagothu, U.S., Barkved, L.J., and Rieu-Clarke, A. 2009. IWRM Recommendations and strategies. STRIVER Policy Brief No. 22
- Everything you need to know about the UN Watercourses Convention (WWF, Switzerland) (with Loures, F & Vercambre, M) – 2008, www.gci.ch/en/component/.../249-unwatercoursesbrochure-english.
- Role and Relevance of the 1997 UN Watercourses Convention – Country Brief (Greece), (with Loures, F. et al.) – 2008, http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_freshwater_agreements_initiative.cfm
- Water Management at the Interface of Government and Society: -The Role of Catchment Organisations and Implications for Policy Development – (Professor Chris Spray) arising from the Scottish Universities Insight Institute award, which involved among others the Tweed HELP Basin, Dee HELP Basin, Motueka HELP Basin (New Zealand) and Fraser Basin (Canada)
- We have also provided much input on policy direct through active, invited membership of such Government policy groups as the Flood Forum and the Scottish Biodiversity Science Group, etc. and on river restoration also

7.7 Annex 7 - Letter from Prof. Downes



Principal and Vice Chancellor

Professor C Peter Downes OBE FRSE FmedSci FSB

Dr Zafar Adeel
Director
United Nations University
Institute for Water, Environment & Health
175 Longwood Road South, Suite 204
Hamilton, ON L8P 0A1
CANADA

Dear Dr Zafar

UNESCO Category II Centre Renewal Financial Support to Centre for Water Law, Policy & Science

Personal Executive Assistant
Valerie Dorward
t +44 (0)1382 385561
v.a.dorward@dundee.ac.uk

Further to our discussions as part of the UNESCO Renewal held in December 2011, I confirm I am happy on behalf of the University of Dundee to fulfil the requirements of Article 9 of document 35C by allocating financial resources of £1 million per year for a five year period, to the Centre for Water Law, Policy & Science.

This allocation of University funds is based on three broad conditions, which are:

- *The implementation of all the recommendations of the UNESCO Evaluation Team.* This will be reviewed by the UNESCO Governing Board and certified through an external mid-stream assessment in 2015.
- *The creation of a results-based management framework that clearly identifies the short and medium term outcomes and targets.* This will be reviewed on a quarterly basis by the Dean of School and on an annual basis by the UNESCO Governing Board.
- *The realignment of the programme of work to the UNESCO mandates and in keeping with the interests of DFID, the Scottish Government and the University of Dundee.*

I am delighted with the outcome of the process and the recommendations of the UNESCO Evaluation Team. The renewal of UNESCO Category II status signals that the University of Dundee has a clear role to play in raising basic standards in the world's poorest countries through solving legal, political and scientific issues where access to water is fundamental to lifting these countries out of poverty. The Centre for Water Law, Policy & Science plays a key role in supporting the University's international development aims. It also helps build Scotland's links with the rest of the world and in generating goodwill with the international community.

Yours sincerely

A handwritten signature in blue ink that reads 'C. P. Downes'.

Professor Pete Downes
Principal & Vice Chancellor

7.8 Annex 8 - **Revised Business Plan (March 2007)**

~~Annex A:~~

Revised Business Plan

This Business Plan responds to the specific conditions of grant contained in paragraph 5 (i) of the offer of grant (letter from Roger McClure dated 6 July 2006). In particular, this note sets forth the Revised Business Plan with details of:

- Aims and objectives
- Milestones and targets in delivering the objectives
- Governance
- Staffing and recruitment
- Graduate School
- External funding and longer term sustainability
- Market analysis
- Keys to success
- Risk analysis
- Breakdown of funding request

1. Aims and objectives

The main aim of the SRDG grant is to establish critical mass in the Dundee UNESCO Centre enabling it to undertake cutting edge interdisciplinary research in water law, policy and science. As a result the Centre will become a world leader in facilitating global poverty alleviation via equitable and sustainable use of water resources and in promoting river basin management based on partnerships between stakeholders, managers and scientists.

By funding a new Chair in Water Law, a new Chair in Water Science, a Chair in Catchment Science, a Senior Lectureship in Law, a Business Development and Programmes Manager and 10 PhD studentships, the SRDG grant will significantly augment the existing research capacity (Professor Wouters, Professor Werritty and Mr Allan and Dr Rieu-Clarke). This will enable the Centre to undertake its UNESCO remit formally established by UN Resolution 33 C/53 (5 October 2005, UNESCO General Conference, 33rd session, Paris).

The Centre has three principal areas of activity: research (80%), graduate teaching/training and knowledge transfer (20%). These activities are complementary: the primary focus is research, supplemented by teaching/training and knowledge transfer. This is essential if effective uptake and dissemination at (local) country level is to be achieved and thereby fulfil the separate goal of developing local water champions in positions of influence. Underlying the objectives of the Centre is the need to ensure that solutions to water problems are well evidenced and both feasible and

workable. This underpins the Research Strategy, and supports the drive to disseminate research results to those best able to implement them.

Key objectives

1. To establish a **global Centre of Excellence** in water law, policy and science and enhance Scottish excellence in water-related research;
2. To **enhance existing excellence in water law** through the creation of a new Chair and a Senior Lectureship in Water Law, supported by PhD research studentships (a broader research base);
3. To **enhance existing excellence in water science** through the creation of a new Chair in Water Science, to serve the UNESCO HELP programme, supported by PhD research studentships;
4. To develop an **operational model of engagement** that enhances the integration of research and uptake of research across the disciplines of water law, policy and science (broadly defined, i.e. hydrology, life sciences, social sciences);
5. To focus **on identifying means to assist States** to address their water related challenges, including supporting developing countries to meet their Millennium Development Goals (MDGs) through research outputs and training developed and disseminated by the Centre;
6. To act as the **Regional Coordinating Unit for the European UNESCO HELP basins** and provide water law and policy input for the global HELP network of 67 basins;
7. To develop and implement the **"Water Law - Water Leaders" LLM postgraduate programme**, especially in developing country regions, e.g., Africa, Central Asia, South-east Asia;
8. To convene **international symposia, including high-level meetings** on relevant topics, featuring UNESCO HELP basins as developmental case studies for the integrated approach to water law, policy and science;
9. To develop a Scottish river basin as **a model HELP basin** for developing expertise on integrated water law, policy and science approaches to addressing basin-wide water resource management issues; to link the Scottish basin to other HELP basins which seek to integrate water law, policy and science;
10. To act as an **international think-tank**, bringing together researchers

from Scotland and abroad for symposia and experts meetings to address the world's water resource management problems, with a particular focus on poverty reduction.

2. Milestones and Targets in delivering the objectives

Short-Term Strategy: Start-up and initial development of Centre's research strategy (Year 1)

The immediate goal is to appoint staff and implement the Centre's Research Strategy (see Annex B).

1. Recruit to Chairs in Water Law, Water Science, Catchment Science, Senior Lecturer in Water Law, Business Development and Programmes Officer and initial PhD students.

In the event that it is not possible to hire the necessary professors in the first year, achievement of strategic and growth objectives will be pursued as far as possible using available staff pending planned recruitment.

2. Establish the Governing Board and the Research Advisory Group and develop a Research Strategy for the Centre (see Annex B).

3. Establish an Executive Committee for the Centre for effective day-to-day delivery of the Centre's activities.

4. Consolidate links with other staff in Dundee working on water-related research, building on the existing Dundee Water Forum. These staff will become Associate Members of the Centre, thereby facilitating the promotion of joint projects with Centre staff.

5. Consolidate links with Scottish public and private sector institutions in the water sector to ensure effective information transfer between UNESCO Centre and the water sector in Scotland.

6. Consolidate links with academics and other practitioners world-wide working in cognate fields. These individuals to be assigned Honorary posts within the Centre.

7. Begin to develop strategy to support European HELP Basins; Dundee to consolidate its leadership role as Regional Coordinating Unit for UNESCO European HELP basins. Identify a Scottish HELP basin to use as an exemplar of best practice.

8. Re-convene International Steering Committee and devise strategy for hosting International HELP Basin Symposium in Dundee
9. Identify key international events for outreach activities (i.e. keynote addresses and inputs in line with objectives of the Centre).
10. Convene meeting of Conference Planning Committee for Water Security Conference planned for 2008.
11. Target specific global programmes that offer opportunities for research proposals in line with the objectives of the Centre. Develop initial research proposals for projects exploiting the enhanced capacity of the Centre.
12. Plan and implement high profile "launch" of the Centre, with international officials invited to Scotland for the event.

Medium Term Strategy: Implementation of Centre's research strategy and launch of Water Law – Water Leaders programme (Year 2)

Complete recruitment to SRDG-funded posts including second tranche of PhD students

1. Finalise the content and delivery of **Water Law - Water Leaders** LLM programme as fundamental pillar for capacity-development; target key sponsors and regions for implementation of a pilot programme. Seek local in-county regional partnerships to assist in development of Regional Centres of Excellence, mentored by the UNESCO Centre, with the objective of in-country capacity-development in water law, policy and science.
2. Devise and implement plan for further international uptake of Dundee Legal Assessment Model, developing in particular the water law, policy and science interface.
3. Continue to target specific global programmes that offer opportunities for research proposals in line with the objectives of the Centre (see item 11 in milestones for first year of Centre's operation). Develop research proposals for projects in to extend and apply the enhanced capacity of the Centre.
4. In association with national and international partners, initiate work on the joint delivery of River Basin Management Plans and Flood Risk Management Plans in accordance with EU Directives.
5. Convene European HELP basin symposium in Dundee to exchange best practice across Europe. The symposium will feature a Scottish basin as an

exemplar of best practice, under the UNESCO HELP basin principles and approach.

6. Convene International Symposium (joint with European Water Partnership, Global Water Partnership and American Water Resources Association) on Water Security in Brussels.

Medium Term Strategy: Implementation of Centre's research strategy -- Leading on key water law, policy and science research themes (Year 3)

1. Convene international think-tank meeting with key global actors on topics related to the role of the private and public sector in water services provision – with a specific focus on the challenges in developing countries and the supporting role of the water law, policy and science interface (technology transfer; new PPP models, water services governance, etc). Seek sponsorship for the PPP think-tank meeting and commitment from world leaders on the topic for meeting in Dundee. Prepare possible outputs on the topic for the next World Water Forum meeting (Turkey 2009).

2. Develop more deeply the transnational water law (water services governance, PPP) programme and outreach.

3. Convene a think tank of international experts to explore water and health issues, focussing on experiences and expertise in Scotland and poverty-related diseases with a view to develop new water law / science research themes for Year 4.

4. Implement first **Water Law – Water Leaders** LLM regional training programme.

5. In association with national and international partners, continue work on joint delivery of River Basin Management Plans and Flood Risk Management Plans in accordance with EU Directives.

6. Continue to support HELP programme with Dundee as Regional Coordinating Unit for UNESCO European HELP basins.

7. Recruit third tranche of PhD students.

8. Continue to target specific global programmes that offer opportunities for research proposals in line with the objectives of the Centre.

9. Initiate discussions with EU on devising more effective EU FP calls (i.e. influence the policy for development calls).

***Long Term Strategy: Implementation of Centre's research strategy –
Pioneering new cross-cutting issues in water law, policy, science
and health issues (Year 4)***

1. Develop platform of support for seeking international funding to address crosscutting issues in the area of water law, policy, science and the role of of the public and private sectors in water services provisions (PPP and governance).
2. Develop platform of support for seeking international funding to address crosscutting issues in the area of water law, policy, science and health.
- 3.
4. **Water Law - Water Leaders** LLM programme fully operational.
5. Recruit fourth tranche of PhD students.
6. Continue to target specific global programmes that offer opportunities for research proposals in line with the objectives of the Centre.
7. Cross-fertilisation of research expertise between Scotland and the international HELP networks working effectively and efficiently.
8. Recognition -- by international organisations (primarily in the UN system), national governments, non-governmental organisations, multi-nationals, and academic institutions -- of the Dundee UNESCO Centre as the "international think-tank" for issues related to water law, policy and science.

***Long Term Strategy: Implementation of Centre's research strategy –
Subsequent Years***

1. Consolidate international reputation of Dundee UNESCO Centre as global leader in water law, policy and science fields, with special focus on poverty reduction.
2. Seek funding for additional researchers at post-doctoral levels and sponsorship for PhD studentships to broaden the research base and deepen expertise to meet growing needs in Scotland and internationally.

Caveat: If the search for suitable candidates for the professorial roles is unsuccessful in the short term, the achievement of some of the above targets may become impractical within the expected time frames, but existing personnel should ensure that there is sufficient flexibility to accommodate such an eventuality. The commitment is to attract the best candidates to the leadership roles of the two new chair posts.

3. UNESCO Centre Governance Structures

The governance of the Centre comprises: the Governing Board, the Research Advisory Group, the Executive Committee, and the Director and the Director for Research. The roles of each of these are specified below:

Governing Board

The Centre will be guided and supported by a Governing Board comprising:

- The Principal of the University, or representative
- The Vice-Principal for Research and Enterprise, or representative
- The Head of the College of Arts and Social Sciences, or representative
- The Dean of the School of Management and Policy, or representative

The functions of the Governing Board will include:

- approving the development of the long and medium term programmes of the Centre, in the context of the Centre's Research Strategy;
- approving the annual work plan and budget of the Centre, including the staffing table;
- approving the annual reports submitted by the Director;
- advising on the drawing up of the Centre's rules and regulations, and determining its financial, administrative and personnel management procedures;
- deciding upon the participation of regional intergovernmental organizations, international organizations and other relevant organizations in the work of the Centre.

In accordance with part III and Annex II of UNESCO Executive Board Resolution 171 EX/18 2005, at a meeting held at least once per year, the Governing Body's membership will be augmented by:

- a representative from the Scottish Executive;
- the Director General of UNESCO, or his/her representative;
- a representative of any other intergovernmental, governmental or non-governmental organization that makes a substantial contribution to the operating budget or running of the Centre and which has been accorded a seat by a decision of the Governing, and,
- a representative from the private sector.

In addition, the Governing Board may set up standing committees if necessary, to ensure the smooth running of particular aspects of the Centre.

Exceptionally, expert staff from UNESCO may be seconded to the Centre, for implementation of joint activities/projects within UNESCO priority areas.

In addition to membership of the Governing Board, UNESCO may be asked to provide assistance in the form of technical advice for the activities of the Centre in accordance with UNESCO's strategic goals and objectives. It may also provide the assistance of its experts and provide liaison with international experts involved with the UNESCO-IHP programme.

Research Advisory Group

A Research Advisory Group comprising around 12 members will be established to assist the Director and the Management Committee in fulfilling the objectives of the Centre. The Group will comprise senior lawyers, scientists and policy makers in the water sector drawn from both Scotland and world-wide. The Group will comment on the Research Strategy and, at least once a year, be invited to comment on its implementation. The Director may also, from time to time, seek guidance from the Group on specific issues. The role of the Group will be purely advisory.

Executive Committee

The day-to-day operational activities of the Centre will be run by an Executive Committee, which, via the Director, will report to the Governing Board. The Executive Committee will comprise the Director and the Director for Research plus the Business Development and Programme Manager.

Director

The Director of the Centre will be responsible for

- directing all work of the Dundee UNESCO Centre in conformity with programmes approved by the Governing Board;
- proposing the draft work plan and budget to be submitted to the Governing Board for approval;
- preparing the provisional agenda for the sessions of the Governing Board and submitting any proposals to it that he/she may deem useful for the administration of the Dundee UNESCO Centre;
- preparing annual reports on the Dundee UNESCO Centre's activities to be submitted to the Governing Board;
- to generally act as the representative for the Dundee UNESCO Centre.

Deputy Director; Director of Research

The Director of the Centre will be assisted at the Deputy Director level by a Director of Research who will be responsible for:

- assisting the Director in the work of the Dundee UNESCO Centre, including acting as Deputy Director;
- monitoring and developing the Research Strategy of the Centre, in collaboration with the Director;

- providing annual reports to the Director on research undertaken by staff in the Centre;
- providing the Centre's point of contact for its RAE 2008 submission;
- reporting to the College Research Committee on activities undertaken by staff in the Centre;
- assisting staff in identifying research funding opportunities and publishing findings in appropriate formats, including peer-reviewed international journals;
- promoting collaborative research between Centre staff and Associates across the University and with researchers in the Scottish water sector;
- promoting collaborative research with other UNESCO water centres around the world.

4. Staffing and Recruitment

Strategic leadership of the Dundee UNESCO Centre is intended to be secured through the creation of two new professorial-level appointments (one in water law and one in water science), each recruited on the basis of their international experience. These post holders will seek to draw the maximum possible benefit from research networks within the University, across Scotland and those made available through the UN system, including the UNESCO HELP basins, other UNESCO Category II Centres, and the UNESCO IHP programme. Appointments to these new posts, together with a Senior Lecturer in Water Law and a Business Development and Programme Manager, together with existing academic staff, will generate the critical mass necessary to pursue targeted research and capacity building in line with the aspirations of the new Centre (see SRDG proposal Annex II Business Plan Explanatory Notes).

In order to enhance existing expertise in catchment science and deliver on the task of coordinating the European UNESCO HELP network, a part time Chair in Catchment Science will also be filled. The holder of the Chair will undertake fundamental research on river basin management and assist the Director in managing the European HELP network and disseminating outputs from the Scottish HELP demonstration basin. The Chair will also be a member of the International Steering Committee for the 67 global HELP basins.

Recruitment efforts will be through international media using existing national and international networks. Close coordination will take place between the Centre and the University. Targeted advertising will take place guided by existing academic staff and world-wide Honorary Associates of the Centre. The University is committed to hiring the best individuals for each post. International experience and standing will be essential for the professorial roles.

Role of the Business Development and Programme Manager

The Centre will employ a Business and Programme Development Manager (BDPM), part of whose remit will be to ensure that the Centre fulfils its objectives, in the broader context of the financial sustainability. The BDPM will advise the Director on the optimum ways that research, graduate teaching, and advisory work should be balanced, in order to ensure that the Centre's resources are optimally deployed.

One of the main roles of the BDPM will be to identify and assist Centre staff in obtaining external research grants (see below), realise consultancy opportunities and obtain sponsorship for programmes such as **Water Law - Water Leaders**. As the network of Associate members of the Centre grows, the BDPM will also be involved in identifying potential joint projects between Centre staff and Associates. The BDPM also be responsible for the administration of the postgraduate programmes at the masters and doctoral levels.

5. Graduate Programme, Capacity Development Focus

Research students

The recruitment of a total of eight PhD students (four of whom are to be funded through SFC funding) throughout the period of SFC funding is fundamental to the Centre's aim of creating critical mass. Each PhD project (jointly supervised by two members of staff) will be directly related to the Research Strategy and the objectives of the Centre. This will not only result in rapid progress towards achieving those objectives, but will also produce the next generation of academics and leading practitioners in the water sector. Over time, graduates from the Dundee UNESCO Centre will be catalysts for change in addressing global water challenges. Following the period of SFC funding, sufficient financing from both the University itself and from externally-funded research and advisory work will be available to continue supporting a total of ten PhD studentships in years 5 and 6 (see project financials for further details). This will increase the capacity to attract further research funding, and will be an essential component of future efforts to increase the number of available studentships.

The University has robust QA procedures in place at both College and School levels for ensuring high quality outputs from research students. Each School within the University operates a Thesis Monitoring Committee which monitors students' progress bi-annually. All research students are required to attend seminar programmes in the School designed to help them progress their studies.

Water Law – Water Leaders

The **Water Law – Water Leaders** LLM programme will provide an essential vehicle for effective uptake and dissemination of research undertaken by the Centre. The programme is designed to promote a new generation of “water champions”, who can lead their countries through their own water-resource related challenges. It will be delivered both in Dundee and at the local level (ie the river basin/country) and targeted at water professionals already in post in water ministries and related bodies. This highly innovative programme will promote knowledge transfer to key decision-makers who will affect future water management policies and practices at a strategic level. By embedding theory and practice in the local setting, the programme will make a significant contribution to capacity raising and delivery of the UN’s MDGs. Sponsorship of the programme will be sought from international development agencies (i.e., World Bank and African Development Bank for African rivers; Asian Development Bank as sponsor for programme in Mekong region; Inter- American Development Bank, for programme in Latin / Meso-America etc).

Executive Leaders and Professional Doctoral Programme

The University is currently exploring the wider promotion of an Executive Leaders and Professional Doctoral Programme, building on a successful model in the School of Education and Social Work. Subject to market testing, the Centre will explore the implementation of a similar executive programme, building on its own strengths in this field and on the expertise in the Centre for Enterprise Management and the Centre for Energy Petroleum Mineral Law and Policy. The Dundee UNESCO Centre and the CEPMLP will move forward existing synergies in this area, with a strong emphasis on developing a new generation of local leaders around the world.

6. External funding and longer term sustainability

The Dundee UNESCO Centre will be sustained through targeted research bids, proactive engagement with the private sector, and an expansion of the current postgraduate teaching programme. The attached Financials indicate the importance of these funding streams in achieving longer term sustainability.

The following funding bodies will be targeted with a view to generating sustainable income streams from UK research councils, the EU and national and international development agencies:

- at the national level: ESRC, AHRC, NERC;
- at the bilateral level: all development aid/government agencies;
- at the international level: World Bank; all regional development banks

EU Framework 7 Programme; all 24 UN Agencies that deal with water; regional bodies (NATO; OSCE); international NGOs.

Private Sector

The private sector has already expressed a growing interest in the work of the Centre. Thus the Centre already has funding for a Research Fellow in Water Services Governance sponsored by SUEZ, one of the world's largest private water companies. This post will help the Centre develop strengths in the water law areas of world trade, finance, public-private sector partnerships and the more commercial side of water resources management.

7. Market analysis

Currently, no similar combination of expertise in the law of water resources coupled with science and policy exists either in Scotland or internationally.

UNESCO has an existing academic capability at IHE Delft, but with a distinctly different approach, primarily focusing on teaching technical aspects of water management. UNESCO IHP has identified the need for a research institution with strong capacity in water law and policy, as a complementary discipline to work with its scientists in Delft. Discussions are already well advanced in developing a shared taught Masters programme between Dundee and the IHE Delft Centre. Once established, this will be a unique collaboration between two of the 12 UNESCO Water Centres endorsed by the IHP UNESCO Secretariat in Paris. It will also enhance joined-up research strategies and undertakings, especially at the EU and international levels.

The Institute of Water and Environment at the Cranfield University is focused on water resource management, but is short of the legal expertise that the Dundee UNESCO Centre will offer. Similarly, the Oxford Centre for Water Research not only lacks an adequate legal component it has an agreement with Dundee, to provide the water law teaching and academic input for its postgraduate MSc programme. It is also concerned primarily with problems of water scarcity, whereas the Dundee UNESCO Centre will also include significant research capacity with respect to flood management.

The Centre for Comparative Water Policies and Laws at the University of South Australia has some limited capacity for water law research, but lacks resources and does not have strong links with the physical sciences: it is not a significant player in the international arena. Dundee is thus ideally placed to undertake a global initiative in water law, policy and science.

8. Keys to success

The principal keys to the success of the Centre include:

- Hiring the best people available for the academic and strategic administrative roles (with appropriate succession strategies).
- Establishment of a workable and operational model to bring the various disciplines together and generate interdisciplinary research that is more than the sum of its parts.
- Development of a responsive and effective Research Advisory Group
- Ensuring that procedures are in place to ensure co-ordination and effective collaboration between the Chairs at the Centre, so as to move forward on the interdisciplinary research focus.
- Establishing effective procedures and systems that bring together research excellence from the UNESCO Centre and UNESCO HELP network, from Scottish institutions, and from relevant international bodies.
- Effective collaboration with other UNESCO Water Centres across the world.
- Establishing effective mechanisms for ensuring that Honorary Associates are able to influence research strategy and knowledge transfer policies.
- Robust strategies for uptake and dissemination of research.
- Effective management of academics' time and effort so that achievement of the Centre's objectives, research strategy and financial sustainability can be secured.
- Sound financial management and reporting systems.
- Strong operational links across the University of Dundee with other units / individuals researching on water in Scotland in order to consolidate and build on these efforts.

9. Risk Assessment

Potential Risk	Level	Likelihood	Management of Risk
UNESCO HELP programme discontinued.	Low	Low	Research strategy will change accordingly. Communication with UNESCO to ensure name affiliation stays.
UNESCO feels that Centre research strategy is no longer consistent with HELP principles	Medium	Medium	Role of Governing Board to ensure research consistent with HELP principles.
Research in water related issues is no longer funded by donors	Low	Very low	Use Honorary Associates to keep Centre appraised of funding priorities.
Staff levels insufficient to cope with workload.	Medium	Medium	Recalibrate tasks to bring work load into balance with

			available staff resources.
Departure of key staff.	Medium	Medium	Ensure appropriate succession mechanisms and rapid re-appointment.
Centre engages in research not consistent with the Research Strategy	Medium	Low	Research Advisory Group will advise on non-compliance and Governing Board will take executive action. Director accountable to Governing Board.
Conflicts between Honorary Associates and UNESCO regarding Research Strategy.	Low	Low	Some Honorary Associates on Research Advisory Group and which will initially comment on any conflict. Governing Board ultimately responsible for resolving any conflict.
Milestones / specific objectives not met by Centre.	Medium	Medium	Annual monitoring of work programme by Governing Board will flag up non-compliance and Director advised accordingly.
Research outputs not of international quality.	Medium	Low	Role of Research Advisory Group to comment on quality of outputs. Governing Body to instruct Director to address failures in achieving international quality outputs
Sustainability proves difficult after first four years.	High	Medium	Develop target driven approach to income generation, focusing on both research project funding and fee income from postgraduate and professional training. Reporting mechanisms in place to ensure regular updates to all concerned re. financial performance.
Hiring best staff proves difficult.	Medium	Medium	UNESCO brand should alleviate this problem. For Water law posts, hire one level below anticipated post and support advancement through mentoring. Existing commitment from those world-class experts in water law will act as mentors and support the work of the Centre. Anticipated that existing staff will be able to

			provide sufficient continuity pending further hiring.
The Centre fails to develop an international presence.	Low	Low	Ensure Research Advisory Group includes leading national and international leaders. RAG to advise Director and Governing Body to instruct Director to revise Research Strategy and dissemination policy if necessary (and address reasons for failure).

10. Breakdown of funding request

The financial statements supporting the Business Plan are attached in a separate excel file, Annex A.2, attached to this document. These have been revised to show full economic costing, as discussed and agreed.