

## Annex

### Detailed Minutes

#### GWSP Executive Committee Meeting,

Durham, New Hampshire September 7-8, 2004

#### **Participants**

*SSC Executive Committee:* Joseph Alcamo (chair 2<sup>nd</sup> day), Dennis Lettenmeier, Robert Naiman, Claudia Pahl-Wostl, Charles Vörösmarty (chair 1<sup>st</sup> day)

*IPO:* Eric Craswell, Marcel Endejan (minutes)

#### **Agenda**

Six issues were on the agenda for the meeting:

1. Selection of the scientific steering committee
2. Responsibilities of the SSC, Executive Officer, and Secretariat
3. First year start-up tasks/actions
4. Fund-raising
5. Connections
6. Future meetings

The main points discussed for each of these issues were as follows:

#### **Issue 1 – Selection of Scientific Steering Committee and Affiliates**

*Number of members:* Membership is to be limited to 15 to 18 according to draft TOR. Proposal: to stay with 15 including the Executive Committee members; SSC members should represent specific topics, be active in the effort and hold a coordinating role.

*Meeting costs:* Note that each of the four ESSP programs should provide 15k\$ per year for SSC meetings (IGBP is financing the Durham meeting).

*Terms of Reference:* The draft TOR (from the ESSP C+D's; 19 August 2004) does not specify requirements regarding gender and north/south representation. Membership in the GECPs and generalists (people working inter-disciplinary) are specified in the draft. These and other criteria (see below) guided selection.

*Working group chairs:* Working group chairs don't have to be members of the SSC.

*National committees:* In China and Japan GWSP has already established national committees. SEARCA in the Philippines proposes a regional centre for water governance and another north-south connection has been established with India. A proposal to the US National Science Foundation to form a US Working Group for the GWSP is pending.

*Ex-officio members:* It was discussed that GWSP should invite ‘observers’ to SSC meetings. It was discussed whether those members should hold an ‘*ex officio* status’, which could lead to a broader interest in the project. Subsequent contact by the IPO with the Joint Carbon Project (Canadell and Raupach) indicated the precedent for *ex-officio* status, which will now be conveyed to potential affiliates (see below for proposed list of SSC members). Targetted affiliates include UNESCO-IHP, HELP (office moving to Bonn), IWMI, IHP, IFPRI etc. could be *ex officio*.

For the voting and selection of SSC members<sup>1</sup> the following criteria were used for guidance:

- Representatives of four GCPs
- Cross-boundary thinking
- Gender balance
- North/South/European/US balance
- Alternatives and “Affiliates”
- Initiative / fund raising / status
- Feasibility/time
- (GWSP group identification)

The following list of proposed SSC members is the result of two rounds of election and additional discussion.

**Table 1: List of proposed SSC members.**

		Representative or GCP generalist (G)	Male/ Female	Region (if not ‘North’)	Feasibility	Ex officio	Alternative	Yes?
<b>1</b>	<b>Alcamo</b>	<b>IHDP/IGBP</b>			<b>X</b>			<b>Y</b>
<b>2</b>	<b>Vorosmarty</b>	<b>IGBP/G</b>			<b>X</b>			<b>Y</b>
<b>3</b>	<b>Pahl-Wostl</b>	<b>IHDP/G</b>	<b>F</b>		<b>X</b>			<b>Y</b>
<b>4</b>	<b>Lettenmaier</b>	<b>WCRP/IHDP</b>			<b>X</b>			<b>Y</b>
<b>5</b>	<b>Naiman</b>	<b>DIV</b>			<b>X</b>			<b>Y</b>
	Rijsberman	G			X	X		

<sup>1</sup> List of presented CVs: Bunn, Stuart; Changming, Liu; Costa, Marcos Heil; Dai, Aiguo; Falkenmark, Malin; Gleditsch, Nils Petter; Gleick, Peter H.; Graca Nunes Correia, Francisco Carlos da; Gupta, Joyeeta; Lansigan, Felino; McClain, Michael; Nilsson, Christer; O’Keeffe, Jay; Oki, Taikan; Osório-Peters, Suhita; Rijsberman, Frank; Rosegrant, Mark; Schulze, Roland; Shiklomanov, Igor; Shuttleworth, James; Singh, R.B.; Van de Giesen, Nick; Wolf, Aaron. List was extended at the meeting with: Martinell (?) (proposed by Charles), Nick van der Giesen (Eric), Max Campos Ortiz (Eric), Roger Pilki jun. (Charles).

6	Lansigan	IHDP		SE Asia				Y
7	Falkenmark	G	F		X			Y
8	Bunn	DIV			X			Y
A1	Sullivan	IHDP/DIV	F				X*	
9	Nilsson	DIV						Y
10	Postel	IGBP/G	F					Y
	2 <sup>nd</sup> voting:							
11	Gupta*	IHDP	F	Eu/Asia				Y
12	Oki	WCRP		Asia	X			Y
13	Odada	IGBP/START		Africa	X			Y
A2	Schulze	IGBP/G		Africa			X	
14	Liu	IGBP/G		Asia	X			Y
A4	Ortiz**	WCRP		South America	X		X	
	After Discussion							
15	Marengo	WCRP						Y
A3	O'Keefe	DIV					X	
A5	Meybeck	WCRP					X	

IHDP=6, IGBP=5, DIV=3, WCRP=3, G=6

Chairs Vörösmarty and Alcamo, charged with forwarding the list of proposed SSC members to David Carson who will pass the nominations to the GCP C&Ds for approval and then invite the candidates.

*'Ex-Officio' Members:*

Proposed list of possible affiliated members:

1. F. Rijsberman (IWMI)
2. A. Szöllösi-Nagy (IHP)
3. other C&Ds (IPCC, FAO, UNEP, IGOS-P Water, GEOS, WMF, TNC, Dialogue on Climate and Water).

Links to the GCP core projects should be established, informing the GWSP liaison persons at the GCP offices. Liaison should also be established with FAO, IHP and other institutions.

## **Issue 2—Responsibilities of Major GWSP Entities**

### **Issue 2.1 – Responsibilities of the SSC, EO and IPO**

*TOR for SSC - Initial Terms:* 'An initial appointment of normally 3 years'. Proposal from Executive Committee: Constitute the initial terms of 2, 3, and 4 years (to allow staggering). To be determined by the SSC. The co-Chairs will make a proposal

concerning the initial terms which will be posted to the password protected web area, once the recommendations are accepted by the C+D's.

*Terms of Reference (TOR) for SSC, and IPO:*

The draft TOR have been amended (see appendix).

## **Issue 2.2 – Process for endorsing GWSP projects**

In recognition of a growing number of requests for endorsements of specific projects by the GWSP, following procedures were proposed and adopted by the Executive Committee:

- Form and proposal: a 5 page executive summary would be required for all such requests, pointing out in specific terms how the project in question would contribute to the GWSP scientific framework; this proposal would be sent to the co-Chairs and IPO for consideration.
- IPO will identify candidate proposals (specifically testing how fits into the GWSP objectives and framework)
- IPO will then distribute the documentation on eligible proposal to the co-Chairs and full SSC
- IPO writes an endorsement letter (if project is accepted)
- Registered projects will be required to give summaries (4 or 5 pages ) each year about the ongoing research, key knowledge, lessons learned, reached milestones, publications etc.

*Criteria for evaluating proposals:*

A Project will be recognized for a specified project duration subject to the following criteria:

- Matching well to the themes and activities of the science framework document (requirement). The main themes involve studying the role of humans in the global water system and the consequences of their interactions. GWSP activities are science driven etc. (see Research Niche paragraphs, page 18).

Encouragement will be given to those project which foster:

- affiliation with the GCP and/or ESSP projects
- multi investigator and international collaboration
- medium to large scale watershed projects
- interdisciplinary projects, including those treating human dimensions issues

*Obligations, to provide:*

- an annual report (app. 5 pages) on progress suitable for publication on the GWSP web site

- datasets and information developed as part of the project, made openly available to the scientific community
- acknowledgement of GWSP endorsement in publications and other outreach products

*Benefits for the projects endorsed:*

- listed as an endorsed GWSP project (on the web site)
- open invitation to participate in workshops etc.
- participation in a global network of GWSP-endorsed projects
- donor recognition that the project is part of the global GWSP effort

### **Issue 3 – First year start-up tasks/actions**

#### **Issue 3.1 – Scientific Framework Document**

The framework document has been approved in principle; revisions must still be made for the final ESSP approval.

*Framing document revisions:* References have to be included into the document (especially within the box 1 on page 14) (Vörösmarty pointed out that he and Holger Hoff has provided some reference documentation that was not yet incorporated. Vörösmarty agreed to forward this information to Alcamo for inclusion). Discussion about the order of the single activities (Dennis: we should make activity point 1.1 to 1.5). Chapter 6 should point out that there are only preliminary activities listed at the beginning of the chapter (and not under point 6.1). The document should also be revised by including funding possibilities etc.

Using input from the national committee meeting (in November) the IPO will prepare a (3 to 5 page) revised implementation plan (chapter 6) for 2005/2007 for consideration for the SSC meeting in February.

The final step for the framing document is to publish it (coloured document which can be handed out to visitors and interested people seemed to be more attractive than only a pdf version on the web). Publication (about \$10,000) has to be paid by the IPO.

The revised document should be published in a limited print run (about 1000). The IPO will carefully examine the budget and costs for the printed version and its distribution, and made available also in a digital version (on the web).

A publication about the need for a global water system project (science), for example in Nature or Science, would be very helpful for the project. Based on the framing document, Joe and Bob will prepare a draft publication for discussion.

### **Issue 3.2 IPO Budget**

Eric gave a short description of the IPO budget and money flows between the supporting organizations. He emphasised the need to develop additional sources of funding as required by the German Government which is currently the main source of support to the IPO.

### **Issue 3.3 Creation of Web Site**

The IPO finally got control of the URL [www.gwsp.org](http://www.gwsp.org). For the web site the template from a Canadian Company under contract to the ESSP has been used. The IPO should ensure that it has control of the template to be able to make necessary changes by itself.

A “What’s-New” category should be added to the page. Attention should also be paid to children and the public: links to and activities such as interactive games (e.g. how water-is-used), lectures on water, etc., would be interesting; something like an “Education-button” would be nice – but the maintenance and updating of such elements of the web site will be important.

### **Issue 3.4 Priority projects and activities, research collaboration**

#### *Activity 1 (NSF and NASA):*

A 15 page proposal has been prepared by Vörösmarty, Lettenmaier, Naiman. Vörösmarty will send the proposal to the IPO to make it available for the SSC. It is an attempt to secure financial support for US contributions to the GWSP activities but gaining specificity from US participants (focus is on building a GWSP network in the US community; hosting a series of workshops and supporting some post-docs for prototyping work). NSF (National Science Foundation) called for water related activities. The overall focus is on identifying what the US community can contribute to the GWSP. Vörösmarty reported on a pending proposal to NASA (pending) to help support his activities as GWSP co-Chair

#### *Activity 2: Conference in Bonn, Feb. 2005*

Originally planned by GLOWA (Nick van de Giesen) and HELP (Nick moved to Delft University). Lara and a student worker are working on the administrative preparations. GWSP representatives will take part (e.g. Alcamo, Vörösmarty).

#### *Activity 3: Ganges-Brahmaputra*

The aim is to convene a group of researchers in the basin with some US partners (money for travelling) in a project that can contribute to the GWSP. The region is also of interest to GECAFS. A proposal is still pending, though would begin in late 2005 if supported. A request was made by Vörösmarty to support R.B. Singh to do some preliminary liaison activities with partners across the region (requiring only \$2000). Craswell pointed out that DLR might be not happy with spending BMBF money for travel of Dr. Singh in India. Alcamo suggest that we might go to START to get money for that purpose. In addition, Craswell could go to India and invite the people to a

workshop at the appropriate moment. In addition the IPO could also promote other connections with the CHALLENGE program and with GECAFS. IPO should free up funds to establish the connections, encourage the project; seek funds.

*Activity 4: Water System Governance South-East Asia – SEARCA proposal for Regional GWSP Center*

GWSP should indeed encourage the development of the Center. However, after much discussion, it was decided that we might better concentrate not on endorsing institutes per se but instead on supporting certain projects under the umbrella of such centers. We should invite SEARCA (as representatives of the region of South-East Asia) to join the November meeting of international affiliates (see below) and to clarify how we can work with them. It would be clear that such a governance center, to assist GWSP would have to be representative of governance issues globally and not just in Southeast Asia.

*Activity 5: NeWater*

From 10 to 15 mil. € is potentially available for a project on adaptive water management under uncertainty. Including case studies. Lead by Claudia and Pavel Kabat. The effort is officially supported by IHDP etc. It will have a synthesizing and network building focus. Global change programs supported this project from the beginning. The project begins in January 2005. It is already agreed that the IPO will receive some money from that project.

*Activity 6: Vulnerability of Water Resources (VIEWS)*

This effort would study environmental change and global water cycle. The project will be closely linked to the GWSP which the EC wishes to act as a platform linking European water researchers to global efforts. Project duration is four to five years. A full proposal has to be ready in March, with a decision by the end of 2005. Vulnerability and the water system is the focus of the project while it also considers the human and biological systems. Emphasis is also on networking, monitoring, and capacity building.

*Activity 7: Vulnerability of African Water Resources*

This is a effort spearheaded by Eric Odada. Several questions emerged during the Exec Comm discussion requiring clarification: How does this project fit under the GWSP project activities in Africa? What is the direction of the effort on the vulnerability of African water resources and how does it fit under the GWSP. Where are the important data sets and who are the important persons (database of contacts).

Pahl-Wostl indicated that Eric Odada is also member of an EU funded project dealing with water basin management. Marcel should go to the UNEP meeting in Nairobi to make contact with the African research network.

*Activity 8: Indicators*

Deborah Bossio is the liaison person of the Challenge Program on Water and Food (see minutes of the meeting in Stockholm with Craswell and Vörösmarty). Challenge basins indicators will be comparable for all the basins in order to search for similarities and differences across these. The connection with the Challenge Program should be pursued. GWSP and Challenge program linkage: working together on indicators we could generate

a set of basin case studies, and assist them in generating basic datasets. It was deemed valuable to work together on metrics (indicators) needed to describe basins. Vörösmarty would like to establish a GWSP synthesis exercise around this theme.

#### *Activity 9: Virtual Water*

Virtual water is an important concept that the GWSP has promoted during its formative stages and needs to be further articulated as part of our execution plan.

#### **Actions on Activities**

Ademola has already gathered much information and will hand it over to Marcel. Ademola prepared also a list of internet links. He put together a paper on the focus of 42 existing water projects in relation to the GWSP activity list. Other products are data on World river basins, basin biodiversity, and lists of river basin indicators and researchers working on indicators.

IPO should go forward to develop a Metadata-database. A preliminary concept for an information system should be prepared before February. Sample data sets for demonstration can be provided by Vörösmarty. Bob is also interested in the metadata-topic for the bio-diversity community.

Vörösmarty/Lettenmaier/Alcamo/IPO to work on developing workshop on assessing the state-of-knowledge about past, current and future state of the GWS and improving our ability to simulate human-induced effects (with PAGES and other ESSP affiliates).. Alcamo/Vörösmarty/IPO to organize an intercomparison exercise on the current generation of water resource models (e.g. WaterGap, UNH, UTokyo models).

IPO should continue with the sub-tasks of A 4-1 (building the GWS Information Base). Get the requirements out of the science framework document, develop a preliminary information system, and present and discuss it with the full SSC in February. Web site: include something like the 'Featured Project' on the page of the UNH arctic coordination project (see <http://arcticchamp.sr.unh.edu/>)

#### **Issue 4 – Fostering Connections**

The BMBF indicates an expectation of the IPO to serve as the platform for attracting additional funds. Thus, the idea of using the GWSP to connect NSF-funded projects with EU funded projects was recognized. What BMBF is specifically looking for: money is that funds show up in the IPO books (for example for organizing workshops), indicating that the office gets money from outside. Several possibilities exist for promoting support from the US: 1. Supplement pending US-NSF proposal (Vörösmarty, Naiman, Lettenmaier), 2. establish an International Office of the US Academy of Sciences or AGU (ask IGBP through Geosciences at NSF) , 3. ask IHP UNESCO how US dues might be refunneled.

Interaction with GCPs through the Directors of the programs in the way it already works should continue. The Chairs and Directors of the programs should be informed, for example by sending the minutes of meetings like this to them.

Thinking at continental scales (beyond simply national committees) is also necessary because some of the funding institutions are focusing on large regions (such as the Asia Pacific Network). The GWSP therefore should encourage formation of national committees that support broad-scale regional and continental studies.

#### *Guidelines for national committees:*

The Exec Comm sees as necessary 2 or 3 pages describing the key points for consolidating GWSP national committees. IPO should organize a meeting (probably late November) with representatives of interested organizations (from India, Pakistan, Japan, China), including the Asia-Pacific Network, to make draft guidelines for national committees and other organisations participating in the GWSP. The draft will be circulated to the Exec Committee first and then discussed and approved at the SSC meeting in February.

The question of how to strengthen the links between GWSP and different organizations (*ex-officio* members and observers) is still open. It should be answered after the project has made some progress. The Exec Comm decided right now to focus on initiating the major portions of the project, leaving this issue open to further development.

How can we build the corporate memory of the project? Should we have a procedure of informing each other, such as an informal newsletter? The IPO should solicit from the SSC and other GWSP members/affiliates short reports about events interesting for the community, at a frequency of approximately every two months. The newsletter will be sent out to the SSC and a smaller circle every two months. But name 'newsletter' has to be changed (E-letter, briefing notes?). The SSC Exec Comm suggests that the IPO publish a regular newsletter every 6 months (first one for the February meeting to feature recent work by the GWSP co-Chairs on freshwater for the Millennium Assessment).

### **Issue 5 – Future Meetings**

#### **Issue 5.1 First full SSC meeting**

The Exec Comm agreed that our first full SSC meeting would be immediately after the February conference in Bonn (1.5-2.0 days). Naiman indicated that this instead should be a separate event lasting at least 3 days to get to know each other better. Pahl- Preferred date: before the Bonn Conference – Sunday Dinner, Monday and Tuesday for SSC meeting (if logistical problems, such as hotel reservations, can be solved). Otherwise after the conference: Saturday and Sunday (with Dinner on Friday). Wostl suggested that the 2<sup>nd</sup> SSC meeting would be held in conjunction with the Stockholm Water Week (one day before or after).

### **Issue 5.2 Planned, co-sponsored GWSP meetings**

To help in planning and responding to opportunities for meetings, a schedule on the GWSP web site showing where GWSP representatives would be present is needed. The GWSP web site should also maintain a catalogue of PowerPoint presentations and posters presented at meetings. IPO is asked to make a draft communications plan before the Feb. 2005 meeting (strategy on how to present the work of the GWSP). (Craswell: PowerPoint presentations have to have the logo of the ESSP on the left and of the GWSP logo on the right side (see presentation already available on the GWSP web site).

### **Issue 5.3 Kick-off GWSP conference/workshops**

It was suggested to prepare a special session at the World Water Week in Stockholm and a 'GWSP day' in connection with the World Water Forum 4. This will be elaborated further in the coming months.

## Follow-up tasks:

1. (Alcamo, Vörösmarty) Send the list of proposed SSC candidates to ESSP (David Carson will give it to the C&Ds and will ask the candidates after the list has been approved).
2. (Alcamo, Vörösmarty) Make proposals for the initial terms for the SSC members (2, 3, or 4 year initial appointment) after approved by the C&D's.
3. (IPO) Clarify possible different status and designations for SSC members which are not 'full' SSC member (observers, ex-officio, etc., without right to vote). Check on how do other GCPs handle this point?
4. (IPO/all) Prepare a list with possible 'affiliates' (observers etc.).
5. (IPO) Prepare a list of ESSP liaison persons. (Who are the ESSP liaison persons?)
6. (All - IPO to collate) Prepare a list with institutions like FAO and IHP to which a liaison should be established.
7. (IPO) Process for endorsing GWSP projects: Consult questionnaires from other projects and distribute (a changed/adapted) version of the draft to the SSC executive members.
8. (IPO) Endorsed projects: Get information about obligations and benefits for endorsed projects of other ESSP projects and extend the existing draft lists.
9. (IPO) First full SSC meeting: Check whether the logistical problems, such as hotel reservations, can be solved to hold the meeting before the conference in Bonn, i.e. Sunday (2005-02-20) Dinner, Monday (21<sup>st</sup>) and Tuesday (22<sup>nd</sup>) for SSC meeting. Otherwise check hotels to hold the meeting after the conference – Saturday (26<sup>th</sup>) and Sunday (27<sup>th</sup>), with Dinner on Friday).
10. (IPO) Create a draft communications plan by Feb. 2005 (strategy of how to present the work of the GWSP)
11. (IPO/all) The IPO should ping the members to give some short reports about events interesting for the community every two months.
12. (IPO) The newsletter should be sent to the SSC and a smaller circle every two months. But name 'newsletter' has to be changed (news notes?).
13. (IPO) Publish a newsletter every 6 months (first issue for the meeting in February 2005).
14. (IPO) *Guideline for national committees*: Organize a meeting (probably late November) with representatives of organizations, e.g. from India, Pakistan, Japan, China, Philippines, Thailand (such as the Asia-Pacific Network), to make a draft guideline for national committees. (The draft should be circulated to the SSC Exec committee first and then discussed and approved at the SSC meeting in February.) Also invite Lansigan (SEARCA) (see activity 5).
15. (SSC Exec Comm) References have to be included into the Scientific Framework document (especially within the box 1 on page 14) (Vörösmarty to send Hoff's and others' comments to Alcamo for inclusion).
16. (IPO) Prepare a (3 to 5 page) revised implementation plan (chapter 6) for the planning period 2005/2007 for the SSC meeting in February (using input from the national committee meeting in November, see above).
17. (IPO) Check the IPO budget and costs for the printed version of the framing document (about 1000 copies) and its distribution.

18. (IPO) Publish the framing document (after revision and approval).
19. (Naiman/Alcamo) Write a draft publication about the need for a global water system project (GWS science) based on the framing document.
20. (Vörösmarty) Send the NSF proposal to the IPO to make it available to the SSC
21. (IPO/Craswell) Establish a link with Indian researchers by planning a workshop in India (in connection with activity 4, see minutes).
22. (IPO) Pursue linkage with the CHALLENGE programme, especially to work with them on the indicator activities.
23. (IPO/Marcel) Establish a link with the African water-research community by visiting the UNEP/DEWA workshop in Nairobi end of September.
24. (IPO) Develop a metadata database.
25. (IPO) Develop a preliminary concept for an information system until February (based on the requirements derivable from the scientific framework document).
26. (IPO) Implement a first version of the information system before February.
27. (Vörösmarty/Naiman) Provide some demonstration (meta) data for the information system
28. (IPO, Vörösmarty) Prepare a charting workshop on the vision for the current and past state of the GWS (probably together with PAGES); IPO/Alcamo to work on an intercomparison exercise on current generation of global water models.
- 29.
30. Vörösmarty/Lettenmaier/Alcamo/IPO to work on developing workshop on assessing the state-of-knowledge about past, current and future state of the GWS and improving our ability to simulate human-induced effects (with PAGES and other ESSP affiliates).
31. Alcamo/Vörösmarty/IPO to organize an intercomparison exercise on the current generation of water resource models (e.g. WaterGap, UNH, UTokyo models).
32. (IPO) Web site: A “What’s-New” category should be added to the page.
33. (IPO) Web site: Add educational site, containing information such as the lectures on water from Alcamo.
34. (IPO) Web site: Include a site with ‘Items to be tackled’
35. (IPO) Web site: Schedule showing where GWSP is represented.
36. (IPO) Web site: Catalogue of PowerPoint presentations and posters.
37. (IPO) Web site: include something like the ‘Featured Project’ on the page of the arctic project (see <http://arcticchamp.sr.unh.edu/>)
38. (IPO) Web site: Develop and publish a list of GWSP-related meetings.

## **Appendix 1 – SSC TOR**

Terms of Reference of the GWSP Scientific Steering Committee  
(as revised at the SSC meeting, 7 September 2004)

DRAFT: 7 September 2004

### Number and composition:

The initial GWSP SSC should consist of 15-18 members in total.

This should include a group of 'executive members' comprising:

- two co-Chairs
- three other members of the Committee.

The five selected 'executive members' of the Committee should be representative of the four international Global Change Programmes of the Earth System Science Partnership (ESSP), *viz.*, DIVERSITAS, IGBP, IHDP and WCRP.

The initial SSC should contain a mix of (i) scientists representing the communities of the four sponsoring ESSP programs (in equal proportions) and (ii) 'generalists' who span the interests of several or all of the programs and can take a broad perspective on the overall GWSP agenda.

Appointment: The members of the SSC are appointed by the Chairs and the Directors of the four ESSP programs following the endorsement as necessary and appropriate from their governing Scientific Committees.

Term of Appointment: an initial appointment of normally three years, with the possibility of renewal for (up to) a further three years.

NB The initial and following Terms of Appointment of the initial SSC may be staggered so as to avoid all Terms of Appointment finishing at the same time.

Role: The primary roles of the SSC are:

- to provide scientific leadership and guidance during the development, planning and implementation of the project;
- to advance the new science of the global water system by initiating and sustaining specific research activities;
- establish and sustain scientific networks for the GWSP by

- promote wide awareness of GWSP amongst the relevant science communities and funding agencies;
- encourage publication of results with an appropriate form of acknowledgement of the four sponsoring ESSP programs;
- review and measure the progress and achievements of the GWSP through the definition and monitoring of milestones, metrics and results;
- encourage collaboration and establish links between GWSP, other joint projects and the relevant core projects of the sponsoring programs;
- update science and implementation plans and supporting documents as appropriate.

The co-Chairs of the GWSP Scientific Steering Committee are expected to:

- provide leadership in advocating, promoting, and enlisting wide international participation in the Project;
- provide intellectual leadership in the further development of the Project;
- ensure that the decisions of the SSC are facilitated by the IPO by working closely with them especially between the meetings;
- report periodically to the Chairs and Directors of the four sponsoring ESSP programs and occasionally, when appropriate, to the governing Scientific Committees of those programs.

Governance: The SSC should normally meet about once a year, to review progress in the development and implementation of GWSP, and to discuss and decide on activities and scientific priorities, which should be initiated or undertaken between SSC meetings.

## **Appendix 2 – GWSP IPO**

### **Guidelines Leading to GWSP IPO Establishment and Funding**

Establishing an IPO is a complex task requiring a substantial commitment of time from the Project co-Chair and SSC members, although the returns are fundamental to the Project's success. Guidance and support in the establishment process is available from the GCP Scientific Committees and Secretariats, as well as other projects with established IPOs.

An IPO is traditionally supported through arrangements between the SSC, funding bodies, and host institutions. All available efforts should be made to secure funding to cover *at least* the following core needs and functions of the GWSP IPO:

- Scientific research staff;
- Support staff, normally to include administration, communications, graphic and Web design, and computing support;
- Office space and equipment;
- Staff travel;
- Communication facilities;
- Publication services; and
- Organisation of essential project meetings.

The host organisation should assist the IPO in obtaining the necessary government approvals and endorsements, including visas, work permits, entry of equipment, materials, and publications, etc. It should also provide access to basic administrative functions to support management of the IPO's funds, staffing, etc.

Experience has shown that it is important that an IPO be a stable 'base' for a project. Hence, agencies and institutions that agree to fund, or share in funding, the GWSP IPO should provide such support on a long-term basis. Extensions of such arrangements should be considered, agreed upon and communicated to the SSC well in advance of the end of the operating period. However, it is quite possible that an IPO will shift from one institution to another during a project's life. Transfers of location often involve substantial loss of 'corporate memory' and can reduce the momentum of the project. Therefore, proper maintenance of records, including financial reports, membership lists, meeting proceedings and minutes, publications, etc., are critical to the long-term success of a project and for the continuity of the IPO in any location and under any leadership.

### **Terms of Reference for International Project Office (IPO) of the GWSP .**

Under the direction of the SSC which sets the policy and scientific agenda of the project, the IPO will implement the project and assist the SSC as follows:

- Carry out the core research mission and activities of the project;
- Implement outreach and publication activities;

- Work with the SSC on developing and maintaining the international research networks necessary to fulfil the scientific goals of the project and enlisting wide international support for the project;
- Ensure effective co-operation with other components of GCPs and other relevant international research programmes and organisations;
- Develop and support working relations with funding agencies and, under the guidance and with the assistance of the SSC, secure continuing financial support for the operation of the IPO;
- Administer the project on a day-to-day basis, under the long-term guidance of the SSC and providing day-to-day support for the work of the co-Chairs and SSC;
- Provide regular reports on activity and results, including financial reports, to the Scientific Committees of the GCP programmes, via their Secretariats.

### **Executive Officer**

The position of Executive Officer of an IPO is a critical one for the success of the project. The position has been filled through an international competitive process in 2003 managed by ZEF, the Center for Development Research in Bonn, as the host institution for the IPO, and involving representatives of the four Global Change Programmes on the selection committee. In the first instance, this process was followed because a SSC was not appointed until 2004. The following guidelines apply to future appointments:

- The co-Chairs of the Project SSC, in consultation with the other SSC members, appoint the Executive Officer and determine her/his role and responsibilities.
- The SSC co-Chairs may determine the most appropriate academic qualifications for the position of Executive Officer. Account should be taken of the obligations and expectations as outlined above as well as the need for high-level scientific ability and international credibility, as well as management experience.

### **Terms of Reference for Global Water System Project – Executive Officer**

*The incumbent should lead the Secretariat of the Global Water System Project of the ESSP, hosted by ZEF of the University of Bonn in cooperation with UNU/EHS. The incumbent acts to facilitate international scientific cooperation.*

The Executive Officer will work in close consultation with the Scientific Steering Committee of the Project, and especially with the co-Chairs, to facilitate the development and implementation of the Global Water System project, by coordinating all aspects of the Project, and in particular to:

1. Facilitate the development and updating of the scientific framework of the GWSP.
2. Identify potential projects within the GWSP scientific framework, develop proposals and help secure funding.
3. Facilitate the implementation of GWSP individual projects and integrative studies.
4. Facilitate communication between interdisciplinary research groups.
5. Plan and facilitate integration and synthesis exercises, including conferences.

6. Maintain close working links with strategic partners and donors, especially the ICSU community.
7. Develop an external communication (or “outreach”) programme.
8. Manage the IPO on a day-to-day basis in accordance with the rules and regulations of the host institution.
9. Prepare and maintain Project accounts and financial statements on behalf of the host institution to Project donors.
10. Report to the Scientific Steering Committee of the GWSP.