

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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### Contents

Agenda Item 1 – Opening .....	2
Agenda Item 2 – Actions from Previous Meeting .....	2
Agenda Item 3 – Administrative Matters.....	3
Agenda Item 4 – Phase 1 Consultation Outcomes.....	4
Agenda Item 5 – Standardizing Attributes.....	6
Agenda Item 6 – Scoring .....	7
Policy Objective and Scoring Levels.....	7
Basis for Scoring for Each Aspect .....	8
Determining an Overall Aspect Score .....	8
Determining an Overall Project Score .....	8
Agenda Item 7 – Guidance Notes .....	9
Agenda Item 8 – Vision of Draft Hydropower Sustainability Assessment Protocol.....	10
Agenda Item 9 – Section I and II Key Components .....	12
Agenda Item 10 – Section III and IV Key Components .....	12
Agenda Item 11 – Process Review .....	13
Agenda Item 12 – Consultation Phase 2 .....	14
Agenda Item 13 – Trialling.....	16
Agenda Item 14 – Forward Work Plan & Budget .....	17
Agenda Item 15 – Protocol Drafting Process.....	18
Agenda Item 16 – Forum Meeting 6 Wrap-Up.....	18
HSAF Meeting 6 Summary of Agreements.....	20
HSAF Meeting 6 Summary of Actions.....	23
ATTACHMENT 1 – Draft Example of a Guidance Note for a Standard Process Attribute.....	26
ATTACHMENT 2 – Draft Example of a Guidance Note for an Aspect.....	27
ATTACHMENT 3 – Draft Example No.1 of Mapping of a Cross-Cutting Issue .....	32
ATTACHMENT 4 – Draft Example No.2 of Mapping of a Cross-Cutting Issue .....	34
ATTACHMENT 5 – Draft Example of 2-Page Aspect Template.....	40

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

Forum Meeting 6 commenced at 8:30 am on Tuesday 10 Mar 09 and closed at 17:30 on Friday 13 Mar 09. Not all agenda items were addressed in the order presented in the meeting agenda, and some agenda items were partially covered one day and completed the next. To avoid any confusion, these minutes record the meeting by agenda item in the order presented in the meeting agenda.

### Agenda Item 1 – Opening

**Present:** Forum Members - Refaat Abdel-Malek (IHA), Daryl Fields (World Bank), David Harrison (TNC), Joerg Hartmann (WWF), Geir Hermansen (Norway), Gudni Johanneson (Iceland), Kirsten Nyman (Germany), Donal O’Leary (Transparency International), Andrew Scanlon (Hydro Tasmania), Zhou Shichun (China), Michael Simon (Oxfam), Gwenaelle Terras (Equator Banks), Yu Xuezhong (China)

Meeting Chair - André Abadie

Forum Coordinator - Helen Locher

Coordination Team – Michael Fink (IHA), Sarah Roberts (Consultation Consultant, Arup), Kristin Schumann (IHA)

**Apologies:** Forum Members – Israel Phiri (Zambia)

The Forum members welcomed the new member for Norway, Geir Hermansen.

The Forum members reviewed and agreed on the meeting agenda provided as Mtg6 Paper 1. The Forum members agreed that the highest priorities were agreeing on Forum responses to the Phase 1 Consultation Outcomes Report and the drafting instructions for the Draft Hydropower Sustainability Assessment Protocol.

### Agenda Item 2 – Actions from Previous Meeting

The minutes from Meeting 5 were provided as Mtg6 Paper 2a but were not discussed, as they had already been accepted as final by agreement of Forum members out of session.

The status of actions from previous Forum meetings, summarised in Mtg6 Paper 2b, was reviewed. A number of the actions were self-explanatory from the status report or were on the Meeting 6 agenda so were not discussed at this point. All of the actions from Forum meetings 4 and 5 were completed. There were some actions from Forum meetings 1, 2 and 3 that were listed as “in train” and received discussion in this meeting.

Action W8b was from Meeting 1 in Washington, DC. It was to identify potential sites for field testing the Protocol, especially in the developing world, inviting active support and proposals from Forum members. It was agreed that this was an inherent part of the trialling strategy, and consequently this action could be deleted from this list.

Action SR8 was from Meeting 2 in Santa Rosa. It was that the Forum Coordinator will investigate the potential for holding Forum Meeting 6 earlier and Forum Meeting 8 later, and will bring proposals for timing and location back to the Forum. It has been considered in train, in that Forum Meeting 6 location had been confirmed but there was no confirmation yet on Forum Meeting 8. It was agreed, as per the previous action, that this should be considered closed and replaced with new actions relating to the forward work plan arising from this meeting.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

Action Z1 was from Meeting 3 in Zambia. It was that the Coordinator will draft a scope of work for a consultant to review and collate the different comparative analyses of the IHA Protocol against World Commission on Dams Strategic Priorities, the Equator Principles / IFC Performance Standards, and multi-lateral development bank safeguard policies in a form that can guide the Forum's progress. Comparative analyses of IHA-WCD and IHA-World Bank Safeguards were provided at Forum Meeting 5. The Equator Banks assessment of IHA-IFC Performance Standards is the subject of discussion between the Equator Banks and IFC. The Forum felt that this action was no longer necessary, as it is more important to see the comparison of the Key Components Document with the IFC Performance Standards than the IHA Sustainability Assessment Protocol (2006).

**Mtg 6 Agreement 1:** *Close HSAF actions W8b, SR8 and Z1, and carry forward through new meeting actions.*

### Agenda Item 3 – Administrative Matters

Michael Fink spoke to HSAF Mtg Paper 3, Forum Budget Overview and Status Report. This paper was to call to the attention of Forum members the present Forum budget status as well as three budget scenarios for 2009. Michael reminded Forum members that the Forum commenced seeking a budget of £640k, but at that time only £480k was committed. He advised that almost all Forum contributions were negatively impacted by exchange rates, and that at the outset the Forum had indications of financial commitments from commercial banks that were unable to be realised. Michael advised that IHA has in place a professional book-keeping and accounting system that enables close monitoring and tracking of the budget and expenditure.

Given that the funding shortfall is not yet addressed, Michael outlined three scenarios for the 2009 budget:

- A. *No additional funding.* Final Forum meeting would be Meeting 7 in June 2009, with approximately £40k for a minimal second Forum consultation but no funding for trialling post June 2009. IHA staff would close out project.
- B. *Additional £200k funding.* All 9 planned Forum meetings can be held, plus limited consultation and trialling.
- C. *Additional £400k funding.* As per Scenario B, plus much greater emphasis on consultation and trialling post June 2009. Allows for regional consultation meetings and 8 formal Forum trials, both with coordinating consultants.

Since Forum Meeting 5, the Forum has received a pledge of €25k from WWF. The World Bank has indicated that it will be making a financial contribution to the Forum, but is uncertain at this point in time of the magnitude. IHA has written to the donor governments to the Forum advising them of the situation and requesting additional funding and/or assistance in obtaining this funding, has written to a number of governments with a fund-raising proposal, and has also raised this issue with its members. The Forum noted that a number of organisations have expressed an interest in contributing to the Forum process through content review and advice, and through trialling and consultation.

**Mtg 6 Agreement 2:** *Forum members agreed that the target for Forum fund-raising is £400k to enable comprehensive trialling and consultation to be undertaken after release of the Draft Hydropower Sustainability Assessment Protocol.*

**Mtg 6 Action 1:** *All Forum members to liaise with Michael Fink on potential sources of funding. Michael to coordinate approaches to potential donors and track status.*

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

The Forum members referred to Meeting Paper 3 later in the meeting when considering the Forum's forward work plan (Agenda Item 14).

### Agenda Item 4 – Phase 1 Consultation Outcomes

Meeting Paper 4 was the HSAF Phase 1 Consultation Outcomes Report (February 2009). Sarah Roberts, the Forum's Consultation Consultant, presented an overview of the consultation process and outcomes, and went through the responses received. The Phase 1 Consultation had four main components: 1) awareness raising through widespread notification of HSAF outputs and consultation process; 2) online questionnaire; 3) Forum member engagement sessions; and 4) direct engagement with key stakeholders. Overall, Sarah felt the Phase 1 Consultation went quite well and met its objectives:

- To establish relationships with stakeholders;
- To assist stakeholders to understand the Forum process and progress; and
- To provide opportunity for feedback.

Sarah reported that overall the consultation process yielded a fairly good set of responses, both in terms of the type of stakeholder responding and the geographic spread. 181 people started filling in the online questionnaire and also provided organisational information. Web statistics indicated that the widespread dissemination of information about the consultation had led to a significant number of people accessing information about HSAF on the website, with around 2,000 more web hits compared to the previous month and to the same period in 2008.

The majority of responses received through all consultation mechanisms focused on relatively high level issues, although a reasonable number of responses to the online questionnaire section focussing on more detailed Protocol content issues were also received. The online survey seemed to work well for the hydropower sector, financial institutions and research organisations. Relatively few responses were received via any mechanism from governments or climate change organisations. Few NGOs or civil society organisations responded to the online questionnaire, and due to their concerns about the process, the Forum undertook a series of phone interviews. This led to a better understanding of civil society views, which was reinforced by the critique of the Key Components Document submitted by International Rivers at the end of the consultation process. The Forum member engagement sessions provided some very interesting feedback, in some cases from discussions between stakeholders from different sector which added extra richness.

Sarah structured the presentation of issues into two groups: 1) the high level issues of Forum process and objectives; protocol structure and level of detail; underpinning principles to the Protocol; cross-section content; and scoring and assessment; and 2) more detailed content issues for Sections I, II, III and IV.

The Forum went through these issues and its response. Because the HSAF Response to Phase 1 Consultation Issues is a substantial document in itself (>15 pages) and will be posted on the Forum website before these meeting minutes ([www.hydropower.org/sustainable\\_hydropower/hsaf.html](http://www.hydropower.org/sustainable_hydropower/hsaf.html)) , each response is not listed in these minutes. However the key agreements and actions arising from the issues raised are incorporated into these meeting minutes so that the status of these responses can be tracked in future meeting papers. Those that do not neatly fit into a meeting agenda item are listed below, and the others are included under relevant agenda items.

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

---

- Mtg 6 Action 2:** *The Forum Coordinator will ensure an analysis is undertaken of how the Key Components Document (January 2009) relates to WCD conclusions, and have this presented as a meeting paper at Forum Meeting 7.*
- Mtg 6 Action 3:** *The Forum Coordinator will ensure a high level analysis is undertaken of the type, development requirements, and relative potential relative impact of various implementation and enforcement options for the Protocol, and have this presented as a meeting paper at Forum Meeting 7.*
- Mtg 6 Action 4:** *The Forum Coordinator will ensure follow up with UNEP to better understand the assistance they are offering the Forum.*
- Mtg 6 Action 5:** *The Forum Coordinator will ensure a meeting is set up with the Equator Banks and the International Finance Corporation to better understand the relationship and the potential issues and opportunities between the Protocol and the IFC Performance Standards, and to learn from IFC about how they have designed their standards to be applicable on a global scale.*
- Mtg 6 Action 6:** *The Forum Coordinator will liaise with the Equator Banks to see if they can provide recommendations to the Forum on how the Key Components Document could incorporate the IFC Performance Standards.*
- Mtg 6 Action 7:** *The Forum Coordinator will ensure that the Forum receives input from appropriate sources on how to ensure relevance of the Protocol to small and medium sized hydropower.*
- Mtg 6 Action 8:** *The Forum will review the wording of the Protocol principles to see how the issues raised in consultation can be addressed.*
- Mtg 6 Action 9:** *The Forum Coordinator will ensure that there is a clear user guide process diagram in the Protocol to make it clear that the sections are stand alone. This will provide guidance on how to utilise the Protocol with respect to the different project lifecycle stages, including decommissioning and relicensing.*
- Mtg 6 Action 10:** *The Forum will develop a reference map for the Draft Protocol to illustrate the cross-cutting dimension of various aspects and attributes (e.g. climate change, human rights), and where to find in the document certain concepts or issues that stakeholders have indicated that they are looking for (e.g. shared river basins).*
- Mtg 6 Agreement 3:** *The Forum aims to design the Protocol to reflect the priority of approaches being avoidance of negative impacts, followed by where avoidance is not possible, minimisation, mitigation or compensation.*
- Mtg 6 Agreement 4:** *The Forum will explore options in how to apply the Protocol and present the findings so that aspects clearly communicated to the Forum to be of fundamental importance are not lost in the detail.*

Sarah concluded that the Phase I consultation certainly helped to build stakeholder awareness of the HSAF process and its progress. Information was widely disseminated and reached most key hydropower stakeholders, although there remain some key gaps in terms of feedback from government and climate change organisations. Direct engagement helped overcome some misunderstandings and build relationships; the HSAF process and its aims now seem to be more broadly understood. A number of civil society organisations remain critical of HSAF and reluctant to engage but there is now a much clearer understanding by HSAF members of what the issues are. This consultation process also illustrated that direct contact (phone or in-person) was more helpful in

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

developing mutual understanding than were in email exchanges. As expected, the online questionnaire proved more popular with some types of stakeholder than others and, while a very useful tool that yielded helpful feedback, it would always need to be supplemented by alternative methods.

Sarah's main points of advice on the Phase 2 Consultation were:

- address the Phase 1 Consultation issues if we want good engagement in Phase 2;
- have regional consultations in Phase 2, noting that some of the relationships developed during Phase 1 should assist with this;
- repeat Phase 1 approaches, but not on their own; Phase 2 should involve as much direct engagement as possible, because the big leaps forward in understanding have occurred where there is direct engagement; and
- all Forum members participate actively in the consultation effort.

**Mtg 6 Action 11:** *The Forum Coordinator will draft the Forum's responses to the issues raised in the Phase 1 Consultation Outcomes Report, provide this to Forum members for comment by Monday 16 Mar 09, and Forum members will reply by Wednesday 18 Mar 09. The Forum Coordinator will ensure that both the Phase 1 Consultation Outcomes Report and the Forum Response to the Phase 1 Consultation Issues go on the external website as soon as possible after this.*

**Mtg 6 Action 12:** *The Forum Coordinator will ensure that a Forum stakeholder list will be maintained, and will include those parties who are interested in following progress of the Forum. In the first instance, a notice will be sent to the Forum's stakeholder list that the Phase 1 Consultation Outcomes Report and the Forum Response to the Phase 1 Consultation Issues have been posted on the external website.*

## Agenda Item 5 – Standardizing Attributes

Helen Locher presented an analysis of commonalities amongst Key Components Document attributes using Mind Manager software. This analysis showed that there are many attributes in the document that are saying similar things but are worded in different ways. Helen suggested that attributes could be standardized to commonly recurring types, and illustrated this through Meeting Paper 5 showing these labels on the Key Components Document attributes.

**Mtg 6 Agreement 5:** *Forum members agreed that the Draft Hydropower Sustainability Assessment Protocol should endeavour to utilise standard attributes. Each aspect additionally may have aspect-specific attributes. Agreed standard attributes are:*

- **Process Attributes:** *Quality of the Assessment Process; Quality of the Management Planning; Quality of the Consultative Process; Level of Transparency; Quality of Integration (process perspective); Appropriateness of the Resource Capacity*
- **Performance Attributes:** *Level of Stakeholder Support; Level of / Likelihood of Compliance; Quality of Integration (performance perspective)*

Further discussion of standard attributes related to scoring (Agenda Item 6) and guidance notes (Agenda Item 7), so relevant agreements and actions are included under those agenda items.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

### Agenda Item 6 – Scoring

Helen Locher spoke to Meeting Paper 6, Proposal on Approach to Scoring. This paper explores a number of questions relevant to the issue of scoring in the Hydropower Sustainability Assessment Protocol, including:

1. Why are we scoring at all?
2. Why not continue with the present scoring approach used in the IHA Sustainability Assessment Protocol (2006)?
3. At what 'levels' do we assign scores, e.g. individual attributes, attribute groups, or process/performance attributes?
4. How should the aspect pages of the Protocol be formatted to reflect and make clear the scoring approach?
5. What are the scoring instructions to determine the score for the level at which it is being assigned, and for aggregating up to the aspect or the project level?

To assist the consideration of these issues for Forum members, the paper sets out a range of relevant issues and ideas for each topic, identifies key questions, and based on this analysis makes proposals as to how best to address the issue.

After an overview of the meeting paper, the Forum members worked in small groups to address some of these questions, and returned to the plenary to share conclusions and reach agreements.

### ***Policy Objective and Scoring Levels***

An important point of discussion was the Policy Objective for each aspect. This was linked to a very fundamental issue about whether the objective is best practice or good practice or acceptable practice, and how does this statement relate to the scoring levels. A concern with linking the statement to best practice was that the standard of acceptable practice would be taken by default to be best practice, which may be setting too high a bar. A concern with linking the statement to good or acceptable practice was that the Forum is not developing minimum requirements for performance, and there is likely to be variation amongst stakeholders about what is considered good or acceptable. Another issue with the label "policy objective" is whose policy is it? The Forum members discussed the suggestion that "intent" could be a better label with policy objective. Note that these issues are relevant to the Process Review, Agenda Item 11, and some of the relevant discussion is further captured under this section of the meeting minutes.

***Mtg 6 Agreement 6:*** *Each aspect will have a description and intent. The intent will be neutrally stated, and not obviously linked to a score. It is a statement of direction, somewhere around good moving towards better, but silent on the degree to which one does (i.e. it does not state a requirement).*

***Mtg 6 Agreement 7:*** *Aspect scoring in the Draft Hydropower Sustainability Assessment Protocol will be Levels 1, 2, 3, 4, 5. Level 1 is understood to be the absence of or very poor practice and Level 5 is understood to be proven best practice. Levels are meaningful and recognisable milestones without specifying a level of acceptability.*

In the process of developing the draft Protocol, and in consultation and trialling of this draft, the Forum members recognise that these are opportunities to learn more about stakeholder views on what the

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

different performance levels mean to them. This will help the Forum understand the challenges and opportunities in scoping possible follow-on work related to defining minimum levels of acceptability.

### ***Basis for Scoring for Each Aspect***

**Mtg 6 Agreement 8:** *For each aspect, the standard attribute types will be used as the basis for scoring, as well as scores for any aspect-specific attributes. Standard attribute types will have common scoring instructions.*

During the meeting Andrew Scanlon developed and presented to the Forum members an example of scoring of a standard attribute – Quality of the Management Planning. This draft example is provided as Attachment 1 to these meeting minutes. The Forum members were favourable of this style but wanted to see more specificity in each scoring level, e.g. a series of relevant dot points in each scoring cell rather than a summary statement.

### ***Determining an Overall Aspect Score***

Forum members discussed how to aggregate scores from each standard attribute and aspect-specific attribute score up to an aspect score. The primary options considered were to average, or take the lowest score. A concern with averaging is that areas of poor or outstanding performance are masked. A concern with taking the lowest score is that overall strong aspect performance in all areas but one is not recognised. The Forum members agreed that at this point in the Forum process the highest priority is to get a document out for trialling and assessment of content and aspect scoring levels, and it is not essential that a methodology for determining an aggregate aspect score is specified. Forum members favoured the use of a summary aspect score diagram for each aspect to show highest, lowest and average attribute scores, as per Figure 1.

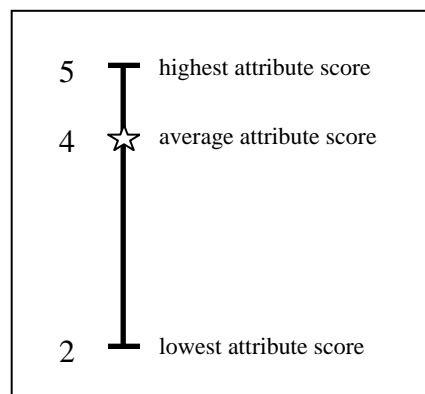


Figure 1 Example Aspect Scoring

**Mtg 6 Agreement 9:** *When trialling the Draft Hydropower Sustainability Assessment Protocol, aspect scores will not be a single number but will provide highest, lowest and average attribute scores.*

### ***Determining an Overall Project Score***

Similarly, Forum members discussed how to aggregate scores for each aspect into an overall project score. A major concern is that aspects that stakeholders have flagged to be of critical importance (e.g. resettlement) will be lost amongst the multitude of information on all the aspects. However to reduce the number of aspects to give some aspects more profile would diminish the comprehensiveness of the Protocol content. Lumping aspects together to reduce numbers increases complexity.

Forum members discussed the use of weighting in the Protocol document. Andrew Scanlon advised that Hydro Tasmania has utilised weighting of performance measures in its Annual Sustainability Report for a number of years, and based on this experience he advised against it. Weighting is a very complex approach, and can create subjectivity and confusion that would counter the Forum’s objective to produce a simple assessment tool.

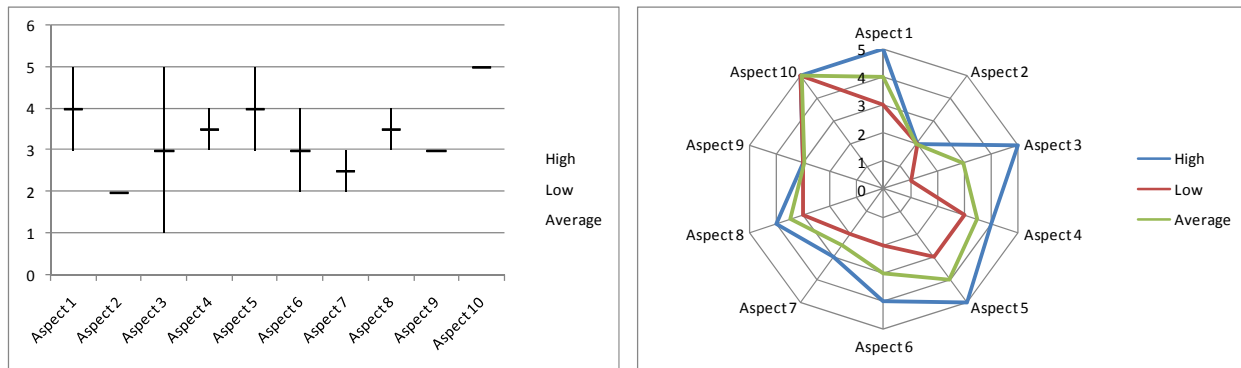
\* Note that agreements reached at a meeting may be revisited and updated at a later meeting based on further information, discussion and analysis.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

The Forum members agreed that at this point in the Forum process we need to get a document out for trialling and assessment of content. For this, it is not essential that a methodology to determine a summarised project score is outlined, but rather a standard format for presentation of results.

**Mtg 6 Agreement 10:** *When trialling the Draft Hydropower Sustainability Assessment Protocol, the overall outcome of the project assessment will be presented as a standard figure presenting the high, average and low attribute scores for each aspect, such as those illustrated in Figures 2a and 2b.*



HSAF Mtg 6 Minutes - Figures 2a and 2b. Examples of summary presentation of Draft Hydropower Sustainability Assessment Protocol assessment

The Forum members discussed how to deal in the Protocol with not applicable aspects. The primary options were to either score them as 5 to recognise and reward avoidance of impact, or to remove that aspect from the summary diagram. In either case, the Forum members agreed that there need to be clear criteria for each aspect to guide the determination that it is not applicable. The Forum did not resolve how to factor not applicable aspects into presentation of the overall assessment results, and will further consider this at Forum Meeting 7.

**Mtg 6 Action 13:** *The Forum Coordinator to bring to Forum Meeting 7 options for a standard figure to be utilised when presenting the results of a Draft Hydropower Sustainability Assessment Protocol assessment. This should include options on how to deal with “not applicable” aspects.*

## Agenda Item 7 – Guidance Notes

Helen Locher spoke to Meeting Paper 7, Proposal on Approach to Guidance Notes, and thanked David Harrison for his contributions towards putting this paper together. The paper explores a number of questions relevant to the issue of guidance notes in the Hydropower Sustainability Assessment Protocol, including:

1. What is the purpose or are the purposes of guidance notes?
2. What types of guidance notes do we need, and how might these be structured within the Protocol?
3. What will be the process for developing guidance notes?

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

---

To assist the consideration of these issues for Forum members, the paper sets out a range of relevant issues and ideas for each topic, identifies key questions, and based on this analysis makes proposals as to how best to address the issue.

After an overview of the meeting paper, the Forum members worked in small groups to address some of these questions, and returned to the plenary to share conclusions and reach agreements.

**Mtg 6 Agreement 11:** *The Forum members agreed that there would be four types of informational guidance in the Draft Hydropower Sustainability Assessment Protocol, not necessarily listed under the label of “guidance notes”:*

- **Application of the Protocol.** *Guidance on application of the Protocol will be found in the Introduction to the Protocol.*
- **Standard attributes.** *Guidance on how to score standard attribute types will be found in the front of the Protocol, with further information on each in an Appendix.*
- **Aspects.** *Guidance on how to score each aspect will be found on the aspect page within the Protocol, and further information on each aspect relating to the spectrum of practice will be found in the Appendix.*
- **Cross-cutting and high profile issues.** *Guidance on where to find cross-cutting and high profile issues in the Protocol will be provided up front in the Introduction to the Protocol, and further information on each issue will be found in the Appendix.*

**Mtg 6 Agreement 12:** *The Forum members agreed that important cross-cutting and high profile issues to be mapped include but are not limited to IWRM (also reflecting basin-wide approach and transboundary issues), Climate Change, Corruption, Communication, Transparency, Human Rights, Gender, Complaints Mechanisms, Livelihoods, Affected Communities, and Multi-Purpose Hydro.*

Examples of these different types of guidance notes were produced during the Forum meeting for discussion.

Attachment 2 provides an example of a draft aspect guidance note for Environmental Flows and Downstream Sustainability. It was considered that some of this content was most relevant for immediate scoring instructions, and should go on the aspect page within the Protocol, whereas some content was further information that could go in an Appendix.

Attachments 3 and 4 provide examples of draft cross-cutting issues mapping and guidance notes for Climate Change and IWRM. It was considered that there was a combination of information presented in these relating to mapping (to go in the front of the Protocol document), further information (to go in the Appendix), and notes for drafting the Protocol content (to be deleted once these notes were addressed).

## Agenda Item 8 – Vision of Draft Hydropower Sustainability Assessment Protocol

The purpose of this agenda item was to pull together the outcomes of Agenda Items 5, 6 and 7 into a consolidated view of the Draft Hydropower Sustainability Assessment Protocol.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

**Mtg 6 Agreement 13:** *The structure of the Draft Hydropower Sustainability Assessment Protocol will be as follows:*

### **DRAFT HYDROPOWER SUSTAINABILITY ASSESSMENT PROTOCOL OUTLINE OF CONTENTS**

**BACKGROUND** – This section will be <1 page and will provide information about the history and development process for this document.

**INTRODUCTION** – This section will be <10 pages and will include:

- purpose and uses of the Protocol;
- underpinning principles;
- understanding the structure of the Protocol document as a whole;
- what section to apply (include diagram for how to use sections in relation to the project life-cycle);
- who is an assessor;
- what happens during an assessment and who participates;
- what prior preparation is required;
- understanding the structure of the aspect-specific assessment content in the Protocol;
- how to determine that an aspect is not relevant;
- how to use the guidance notes and appendix;
- how to assign scores;
- what is objective evidence;
- how to aggregate scores;
- how to write up and present the results;
- how to use the assessment results to move forward;
- how high profile and cross-cutting issues are represented in the Protocol; and
- how legacy issues are dealt with.

**SCORING OF STANDARD ATTRIBUTES** – This section will provide instructions on scoring of each of the standard attributes (<1 page each). These include:

- Process Attributes: Quality of the Assessment Process; Quality of the Management Planning; Quality of the Consultative Process; Level of Transparency; Quality of Integration (process perspective); Appropriateness of the Resource Capacity
- Performance Attributes: Level of Stakeholder Support; Level of / Likelihood of Compliance; Quality of Integration (performance perspective)

**SECTIONS I, II, III, IV** – Each aspect will have a 2-page aspect scoring sheet that includes description, intent, scoring matrix, sample auditor questions, scoring instructions on aspect-specific attributes, examples of evidence, aspect relation to any cross-cutting issues, criteria to conclude that the aspect is not relevant, and summary aspect scores (high, average, low).

**GLOSSARY** – Contains a list of important definitions

#### **APPENDIX**

- Standard Attribute Information Notes (<5 pages for each standard attribute)
- Aspect Information Notes (<3 pages for each aspect)
- Cross-Cutting and High Profile Issue Information Notes (<5 pages each)

**Mtg 6 Action 14:** *The Forum Coordinator to ensure that standard templates for each of the important Draft Protocol content components are developed and circulated to Forum members for comment and refinement as soon as possible after Forum Meeting 6.*

An example of the 2-page aspect scoring sheet provided for each aspect within the body of the Protocol document is provided as Attachment 5 to these minutes.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

### Agenda Item 9 – Section I and II Key Components

The Forum went through all the comments on Sections I and II listed in the Consultation Outcomes Report, both for high level issues as well as detailed content issues.

There were significant concerns presented about Section I, including who would use it, whether it is trying to do too much, about the need to separate out responsibilities of government and developers, and whether it is practicable. Developers wanted to see Section I as more of a project screening and planning tool, to be used to answer questions about strategic and project specific risks before they invest in project preparation. There was an alternative view that Section I should not be project oriented, but should be focused on questions that arise before a specific project is being considered. Some respondents (including multi-lateral development banks) indicated this section was important to indicate the need for a broader perspective, and to alert governments to the linkages between private and public sector roles.

**Mtg 6 Agreement 14:** *Section I is intended to be a tool that serves both the governments and the developers needs.*

**Mtg 6 Action 15:** *The Forum members will draft the Section I content trying to address the specific issues raised in the consultation, and reconsider when looking at this draft whether it adequately addresses the concerns raised.*

The remaining Section I and II content issues are addressed one by one in the Forum Response to the Phase 1 Consultation Issues, and these responses are not repeated here.

**Mtg 6 Action 16:** *The Forum Coordinator will ensure that the detailed Section I and II content recommendations listed in the Phase 1 Consultation Outcomes Report are checked when developing the Draft Hydropower Sustainability Assessment Protocol content.*

### Agenda Item 10 – Section III and IV Key Components

Mtg6 Paper 10a provided Section III Key Components, and Mtg6 Paper10b provided Section IV Key Components, as per the format used in the Key Components Document (Jan 09).

In the meeting, the Forum focused on the detailed content issues for these sections listed in the Phase 1 Consultation Outcomes Report. Because many of the responses were the same or similar to those identified for the Section I and II content, Forum members focused on those where the recommendation was for a new aspect or new content in these sections.

**Mtg 6 Agreement 15:** *Major guides for decision-making on detailed content recommendations for Sections III and IV will come out of the content-mapping exercises (Mtg6 Action 10) and out of the need to ensure that each section can stand alone as an assessment tool.*

**Mtg 6 Action 17:** *The Forum Coordinator will ensure that the detailed Section III and IV content recommendations listed in the Phase 1 Consultation Outcomes Report are checked when developing the Draft Hydropower Sustainability Assessment Protocol content.*

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

### Agenda Item 11 – Process Review

The intent of this agenda item was to re-affirm Forum objectives, and to agree on Forum performance indicators and major risks that will be reported on in the April 2009 Forum Status Report. Meeting Paper 11 was provided as a Process Review Guidance Document for this Forum meeting. This meeting paper provided as attachments the notes from Forum Meeting 1 on the Forum work plan and staged objectives, and the performance indicators and major risks provided in the November 2008 Forum Status Report.

Much of the process review discussion points arose throughout the meeting, prompted by issues arising from the Phase 1 Consultation, and also by issues that needed to be addressed before clarity could be gained on directions for the Draft Protocol such as scoring instructions and the role of policy objectives.

It became evident from the discussions that there is a diversity of expectations and ambitions about the Forum process and its objectives. Whilst the Forum had agreed at its first meeting that it would address pathways forward including development of a sector standard as a follow-on from the 2-year Forum work program, the considerable attention in the Phase 1 Consultation issues to standards and minimum requirements brought forward again the discussions about whether the Forum should be trying to build this more centrally into its present work plan.

Figure 3 is useful in consolidating the diversity of ambitions and expectations that came forward in discussions relating to the Forum objectives:

- Scenario A shows a minimalist scenario in which the Forum provides expert review to the IHA on their IHA Sustainability Assessment Protocol (2006), and the IHA proceeds to update its Protocol and Guidelines to reflect this. This scenario was the assumption for some stakeholders about the Forum process and objectives.
- Scenario B shows the scenario aiming at a measurement tool outlining the spectrum of performance, from which a group could take forward towards developing a sector standard. This scenario reflects most closely the Forum Meeting 1 agreements and the Memorandum of Understanding signed by Forum members.
- Scenario C shows a possible ultimate outcome of the Forum process which could be a sector standard endorsed by some or all Forum members. This scenario reflects the aspirations of some Forum members, but could not be an aspiration of all members because some have their own organizational standards (developed according to their own organizational requirements for process and consultation) which guide their decisions on projects.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

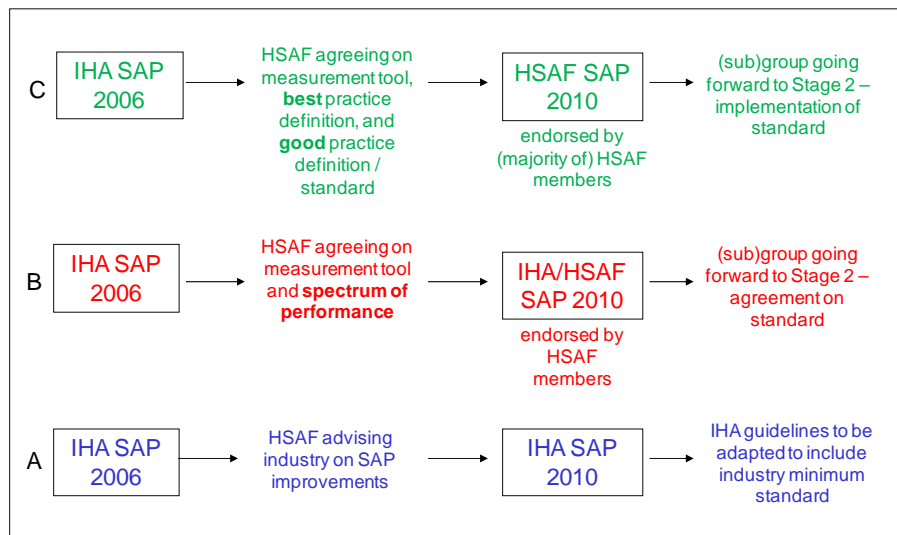


Figure 3 – Diversity of Ambitions and Expectations with respect to the HSAF Process

The Forum members re-affirmed that Scenario B in Figure 3 is the scenario that best describes the Forum process and outcomes. Within this scenario, there was considerable discussion about whether the Protocol was articulating the spectrum of practice with or without defining good or best or acceptable practice.

**Mtg 6 Agreement 16:** *The Forum confirmed that they are aiming to produce a measurement tool that captures the spectrum of performance relevant to each aspect. A follow on phase could take the foundation provided by the Hydropower Sustainability Assessment Protocol and go forward to work towards a sector standard of acceptable performance.*

There was also discussion about whether the Hydropower Sustainability Assessment Protocol is an IHA Protocol (version 7), an HSAF Protocol, or a collaborative IHA/HSAF product. “Ownership” of the product was discussed as meaning the HSAF members feel part of it, own its creation, and stand behind it.

**Mtg 6 Agreement 17:** *The Forum confirmed that in the objective of producing a broadly endorsed measurement tool for sustainable hydropower they are aiming to produce a collaborative IHA/HSAF product, endorsed by all Forum members. This recognises that not all Forum members may wish to continue forward with efforts towards development of a sector standard, and that the process and participation to do this will need to be defined.*

The Forum did not have time in Forum Meeting 6 to review the performance indicators and major risks.

**Mtg 6 Action 18:** *The Forum Coordinator to circulate the list of performance indicators and major risks for the HSAF, and get feedback from all Forum members. Review of these will be on the agenda for Forum Meeting 7.*

## Agenda Item 12 – Consultation Phase 2

This agenda item commenced with a verbal report from Yu Xuezhong on a Forum consultation meeting he convened with members of the China Institute of Water Resources and Hydropower Research (IWHR) during the Phase 1 Consultation. Dr Yu’s reported on initiatives to promote the work of the Forum within China, and advised that he and Mr Zhou Shichun report regularly on Forum

\* Note that agreements reached at a meeting may be revisited and updated at a later meeting based on further information, discussion and analysis.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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progress to IWHR, CHECC, MWR, CTGPC, and the National Energy Administration (NEA). He described relevant research being undertaken within IWHR, and summarised views arising from the meeting on the Protocol, including necessity, basic principles, structure, and suggestions. Dr Yu advised that he plans to hold another seminar during the Phase 2 Consultation, and will draw on participants from a wider group of organisations. The Forum members commended Dr Yu's initiatives on outreach about the Forum and the Protocol within China.

Helen Locher spoke to Meeting Paper 12, Proposal on Consultation Phase 2. This meeting paper addresses the objectives for the Phase 2 consultation, principles, stakeholders, timing considerations, approaches, consultation questions, resource requirements, funding, and the Phase 2 consultation outcomes report.

The Phase 2 consultation is intended to focus on content of the draft Protocol and practical application of the assessment tool.

The approaches proposed in the meeting included centralised approaches as per Phase 1 (on-line questionnaire, email, telephone stakeholder outreach), as well as a number of regional approaches (e.g. regional workshops, consultation associated with trialling, Forum member meetings with target organisations including civil society/dam-affected, Forum member briefing sessions, sessions at conferences or external events).

Forum members discussed the opportunities and priorities for regional approaches. The Consultation Consultant had advised that Latin America, Asia and Africa often came up in the discussion of regions, with particular attention to Brazil, India, China and the Mekong region.

Whilst the Forum agreed that regional approaches are essential for the Phase 2 Consultation, the big issue is absence of sufficient funding to enable this. Three scenarios for funding were outlined in the meeting paper, and showed that costs ranged from a minimal scenario costing £56,000 (2 months consultation consultant, 2 regional meetings, 2 Forum member regional visits) to a more comprehensive scenario costing £119,000 (4 months consultation consultant, 4 regional meetings, 6 Forum member regional visits).

The meeting paper suggested that there was sufficient money in the Forum budget to undertake a minimal scenario, but attention was called to an error in the meeting paper and in fact the most that would be available is closer to £40,000.

As shown in Mtg 6 Agreement 2, the Forum is committed to seeking an additional £400k to support comprehensive consultation and trialling with the Draft Protocol.

**Mtg 6 Action 19:** *The Forum Coordinator will ensure that a number of regional approaches are incorporated into the design of the Phase 2 Consultation, and to make it an explicit objective to get good insights from those not well-reflected in the Phase 1 Consultation responses, namely dam-affected peoples, governments and climate change organisations. It is understood that implementation of this plan is budget-dependent.*

**Mtg 6 Action 20:** *The Forum Coordinator will ensure that feedback of stakeholders is sought in the design and planning for the Phase 2 consultation, and will put a Phase 2 Consultation planning document on the Forum website for this purpose. Forum members will review this document before it goes on the website. Care will be taken in the document wording to manage expectations in case additional funding is not forthcoming and the plan cannot be fulfilled.*

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

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**Mtg 6 Action 21:** *The Forum Coordinator to investigate the cost and timing requirements and the in-kind support opportunities around getting documents translated for the Phase 2 Consultation, with particular focus on Spanish, Portuguese, French and Mandarin Chinese.*

**Mtg 6 Action 22:** *Gudni Johannesson to develop a strategy to ensure good government engagement in the Phase 2 Consultation, and to liaise with the Forum Coordinator on the implementation.*

**Mtg 6 Agreement 18:** *The Forum agrees that it will continue working with Sarah Roberts as Consultation Consultant if funding permits her to be re-contracted.*

### Agenda Item 13 – Trialling

Meeting Paper 13a was an Analysis of Previous Protocol Assessments, and provided a number of recommendations relating to Draft Protocol content and future assessments. The Forum members noted these recommendations.

**Mtg 6 Action 23:** *The Forum Coordinator to ensure that recommendations from Meeting Paper 13a, Analysis of Previous Protocol Assessments, are taken into consideration when drafting Protocol content and in development of the trialling plans for the Draft Protocol.*

Joerg Hartmann spoke to Meeting Paper 13, Proposal for Trialling, on which he had taken the lead in development. This paper set out objectives for the trialling, criteria for selection of trial projects, timing and an implementation plan, a preview of a project trial, the budget for the trial program, and terms of reference for a trial consultant.

The trialling paper proposed separating out those trials that are fully and formally supported by the Forum and meet the Forum's selection criteria from hopefully a much wider set of stakeholder-led trials which are reported to the Forum using a standard reporting approach. A trial consultant would be responsible for organising the formal Forum trials, and collating all of these findings along with those findings from the stakeholder-led trials into a single trialling outcomes report for the Forum.

Forum members discussed many of the practical issues with undertaking a trial. The length of the trial was a critical one. There was strong support for full trials of the Protocol, and to do fewer more in-depth trials. Discussion points included the roles on the auditing team, whether a professional auditor should lead with others observing / contributing, time and cost expectations of companies participating, and issues of transparency and confidentiality of the trial process and results.

As with the Consultation Phase 2 proposal, the most immediate issue for trialling is the absence of guaranteed funding. The Forum noted the implementation plan, which would require terms of reference for a trial consultant to be issued by end-March. A minimalist scenario, which would have 2 formal Forum trials without using a consultant, would cost £29k. The most comprehensive scenario would have 8 formal Forum trials with a consultation consultant over five months also compiling the outcomes of hopefully a large number of trials undertaken by stakeholders with a common reporting template, at an estimated cost of £149k.

**Mtg 6 Action 24:** *Joerg Hartmann to take the lead on continuing to develop the Forum's trialling strategy, in close liaison with the Forum Coordinator and other Forum members.*

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

### Agenda Item 14 – Forward Work Plan & Budget

Mtg6 Paper 14 provided an overview of the Forum Work Plan. The objective of this agenda item was to reconsider the forward work plan in light of the budget situation, and agree on any changes to the work plan and/or budget planning scenarios.

Helen Locher proposed an expansion to the work plan post-meeting 7, as shown in Figure 4. Notable changes are:

- A delay in commencement of the Phase 2 Consultation and trialling, to start 1 August 2009.
- An increase in the time period for the Phase 2 Consultation and trialling to three months, going from 1 Aug to 31 Oct 2009.
- Forum Meeting 8 to be scheduled for early December 2009, and Forum Meeting 9 for late February 2010.
- The delivery date for the second Forum status report to be moved from April 2009 (presently scheduled) to July 2009, so that it would be up-to-date before the commencement of Consultation Phase 2.

The advantages of this work plan scenario were seen as multiple, and include more time to get incoming cash flow, more time to plan and to undertake the phase 2 consultation and trialling, time to get the Draft Protocol translated, more chance of Forum member involvement over a 3 month consultation and trialling period, and more time to consolidate outcomes and develop agreements on the Final Protocol content.

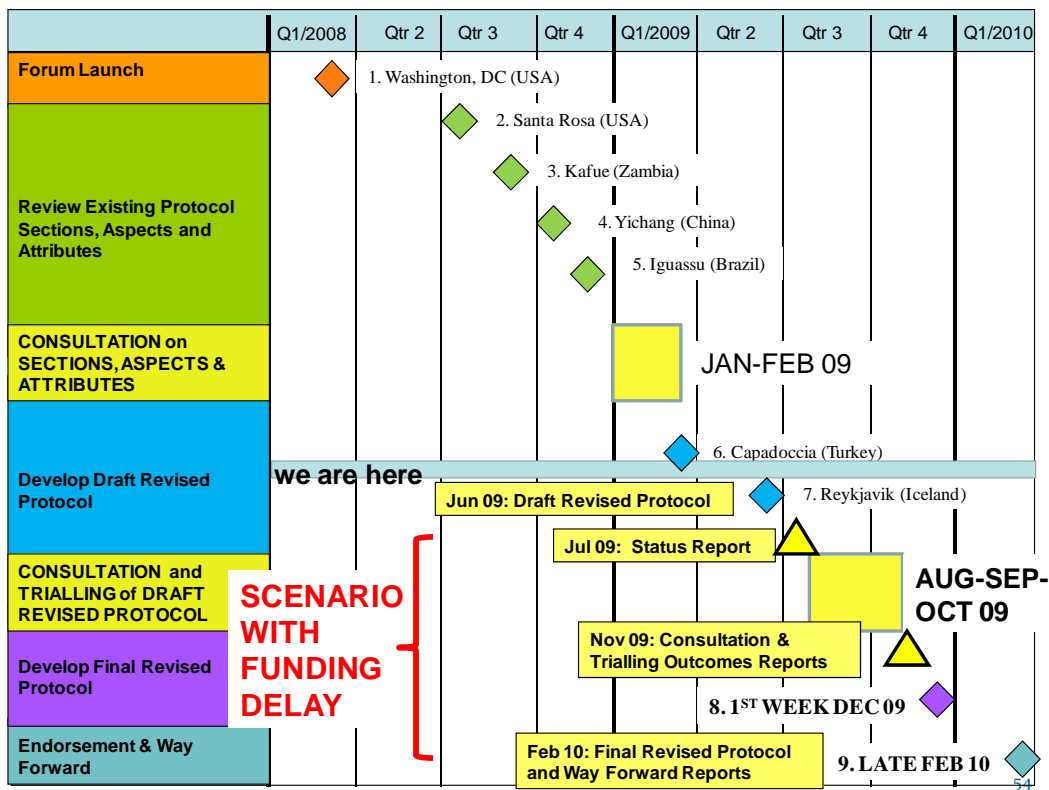


Figure 4 Work Plan Modifications Proposed at Forum Meeting 6

\* Note that agreements reached at a meeting may be revisited and updated at a later meeting based on further information, discussion and analysis.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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**Mtg 6 Agreement 19:** *The Forum members agreed to the following Forum work plan changes:*

- *Phase 2 Consultation and Trialling from 1 Aug to 31 Oct 2009;*
- *Meeting 8 in early December 2009;*
- *Meeting 9 in late February 2009; and*
- *Second Forum Status Report in July 2009.*

**Mtg 6 Action 25:** *Michael Fink to liaise with the Forum donors about the changed schedule and milestones.*

### Agenda Item 15 – Protocol Drafting Process

Helen Locher talked through the Protocol drafting needs, and opportunities to get specialists together to contribute to development of the draft content. She advised that there are 3 specific opportunities at which meeting rooms have been made available and in-kind support committed, and these were envisaged to be structured as follows:

- Washington DC at the World Bank during World Bank Energy Week – 31 March, 1 April and 2 April – Forum members and World Bank and other invited specialists providing input on social, environmental and economic aspects.
- London at the offices of HSBC on 16 April – Forum members and invited specialists providing input on financial, technical and governance aspects.
- London at the offices of JP Morgan on 12, 13 and 14 May – Forum members and alternates reviewing draft content, ensuring consistency and filling in gaps.

**Mtg 6 Action 26:** *The Forum Coordinator to liaise with Daryl Fields about the proposed meetings to work on draft Protocol content, and circulate information about these to Forum members as soon as possible.*

### Agenda Item 16 – Forum Meeting 6 Wrap-Up

The Forum members reviewed the agenda items and those put into the “Parking Lots” and confirmed that all of the key issues had been covered in this meeting. No outstanding issues were listed, but it is understood that a number of actions are defined to help developing thinking on critical issues.

The Forum reviewed and confirmed the purpose and arrangements for Forum Meeting 7. This meeting will be in Burfell, Iceland on the 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup> and 21<sup>st</sup> of June 2009. Forum members should plan to arrive in Reykjavik, on the 17<sup>th</sup> by mid-late afternoon, and depart from Reykjavik anytime on the 22<sup>nd</sup>. The primary objectives of the meeting are:

- To review and make agreements on the Preliminary Draft of the Hydropower Sustainability Assessment Protocol; and
- To agree on forward work plan (trialling, consultation Phase 2, consultant input, meetings 8 and 9).

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

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No additional meeting participants were seen as necessary for this meeting, other than the consultation and trialling consultants if these arrangements are able to be made.

Forum members are encouraged to stay on for the IHA Congress, which will take place in Reykjavik on 23-26 June, and which will include a session on hydropower sustainability and a side event on the Forum both on 26 June. Forum members will be invited to play an active role in the Congress and will be contacted by IHA in this regard.

The Forum meeting closed at 17:30 on 13 Mar 09. The next meeting of the Hydropower Sustainability Assessment Forum is Forum Meeting 7 in Burfell, Iceland, 18-21 Jun 2009.

**End of meeting note:** The Forum members commended Helen Locher and the team for excellent meeting organization. The Forum especially appreciated the work and coordination required to prepare the background papers which were central to achieving decisions.

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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### HSAF Meeting 6 Summary of Agreements

**Mtg 6 Agreement 1:** Close HSAF actions W8b, SR8 and Z1, and carry forward through new meeting actions.

**Mtg 6 Agreement 2:** Forum members agreed that the target for Forum fund-raising is £400k to enable comprehensive trialling and consultation to be undertaken after release of the Draft Hydropower Sustainability Assessment Protocol.

**Mtg 6 Agreement 3:** The Forum aims to design the Protocol to reflect the priority of approaches being avoidance of negative impacts, followed by where avoidance is not possible, minimisation, mitigation or compensation.

**Mtg 6 Agreement 4:** The Forum will explore options in how to apply the Protocol and present the findings so that aspects clearly communicated to the Forum to be of fundamental importance are not lost in the detail.

**Mtg 6 Agreement 5:** Forum members agreed that the Draft Hydropower Sustainability Assessment Protocol should endeavour to utilise standard attributes. Each aspect additionally may have aspect-specific attributes. Agreed standard attributes are:

- **Process Attributes:** Quality of the Assessment Process; Quality of the Management Planning; Quality of the Consultative Process; Level of Transparency; Quality of Integration (process perspective); Appropriateness of the Resource Capacity
- **Performance Attributes:** Level of Stakeholder Support; Level of / Likelihood of Compliance; Quality of Integration (performance perspective)

**Mtg 6 Agreement 6:** Each aspect will have a description and intent. The intent will be neutrally stated, and not obviously linked to a score. It is a statement of direction, somewhere around good moving towards better, but silent on the degree to which one does (i.e. it does not state a requirement).

**Mtg 6 Agreement 7:** Aspect scoring in the Draft Hydropower Sustainability Assessment Protocol will be Levels 1, 2, 3, 4, 5. Level 1 is understood to be the absence of or very poor practice and Level 5 is understood to be proven best practice. Levels are meaningful and recognisable milestones without specifying a level of acceptability.

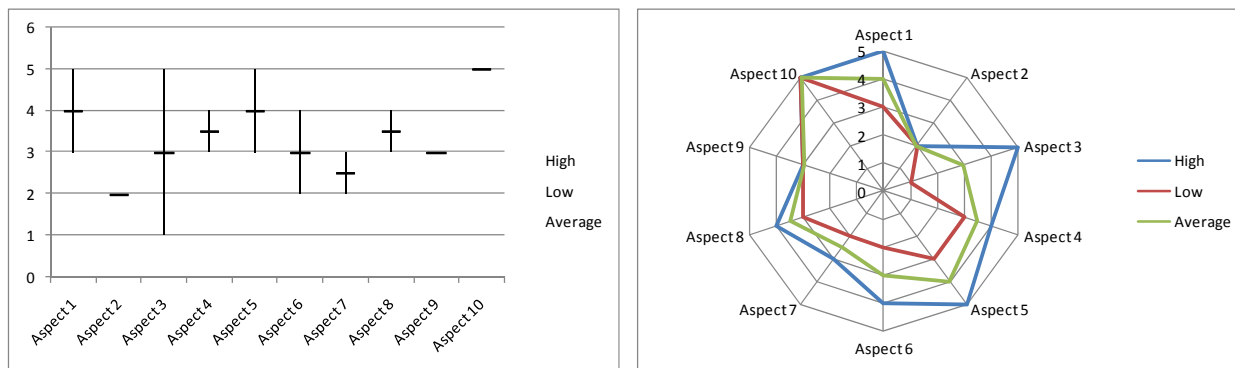
**Mtg 6 Agreement 8:** For each aspect, the standard attribute types will be used as the basis for scoring, as well as scores for any aspect-specific attributes. Standard attribute types will have common scoring instructions.

**Mtg 6 Agreement 9:** When trialling the Draft Hydropower Sustainability Assessment Protocol, aspect scores will not be a single number but will provide highest, lowest and average attribute scores.

**Mtg 6 Agreement 10:** When trialling the Draft Hydropower Sustainability Assessment Protocol, the overall outcome of the project assessment will be presented as a standard figure presenting the high, average and low attribute scores for each aspect, such as those illustrated in Figures 2a and 2b.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes



HSAF Mtg 6 Minutes - Figures 2a and 2b. Examples of summary presentation of Draft Hydropower Sustainability Assessment Protocol assessment

**Mtg 6 Agreement 11:** The Forum members agreed that there would be four types of informational guidance in the Draft Hydropower Sustainability Assessment Protocol, not necessarily listed under the label of “guidance notes”:

- **Application of the Protocol.** Guidance on application of the Protocol will be found in the Introduction to the Protocol.
- **Standard attributes.** Guidance on how to score standard attribute types will be found in the front of the Protocol, with further information on each in an Appendix.
- **Aspects.** Guidance on how to score each aspect will be found on the aspect page within the Protocol, and further information on each aspect relating to the spectrum of practice will be found in the Appendix.
- **Cross-cutting and high profile issues.** Guidance on where to find cross-cutting and high profile issues in the Protocol will be provided up front in the Introduction to the Protocol, and further information on each issue will be found in the Appendix.

**Mtg 6 Agreement 12:** The Forum members agreed that important cross-cutting and high profile issues to be mapped include but are not limited to IWRM (also reflecting basin-wide approach and transboundary issues), Climate Change, Corruption, Communication, Transparency, Human Rights, Gender, Complaints Mechanisms, Livelihoods, Affected Communities, and Multi-Purpose Hydro.

**Mtg 6 Agreement 13:** The structure of the Draft Hydropower Sustainability Assessment Protocol will be as follows:

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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### **DRAFT HYDROPOWER SUSTAINABILITY ASSESSMENT PROTOCOL OUTLINE OF CONTENTS**

**BACKGROUND** – This section will be <1 page and will provide information about the history and development process for this document.

**INTRODUCTION** – This section will be <10 pages and will include:

- purpose and uses of the Protocol;
- underpinning principles;
- understanding the structure of the Protocol document as a whole;
- what section to apply (include diagram for how to use sections in relation to the project life-cycle);
- who is an assessor;
- what happens during an assessment and who participates;
- what prior preparation is required;
- understanding the structure of the aspect-specific assessment content in the Protocol;
- how to determine that an aspect is not relevant;
- how to use the guidance notes and appendix;
- how to assign scores;
- what is objective evidence;
- how to aggregate scores;
- how to write up and present the results;
- how to use the assessment results to move forward;
- how high profile and cross-cutting issues are represented in the Protocol; and
- how legacy issues are dealt with.

**SCORING OF STANDARD ATTRIBUTES** – This section will provide instructions on scoring of each of the standard attributes (<1 page each). These include:

- Process Attributes: Quality of the Assessment Process; Quality of the Management Planning; Quality of the Consultative Process; Level of Transparency; Quality of Integration (process perspective); Appropriateness of the Resource Capacity
- Performance Attributes: Level of Stakeholder Support; Level of / Likelihood of Compliance; Quality of Integration (performance perspective)

**SECTIONS I, II, III, IV** – Each aspect will have a 2-page aspect scoring sheet that includes description, intent, scoring matrix, sample auditor questions, scoring instructions on aspect-specific attributes, examples of evidence, aspect relation to any cross-cutting issues, criteria to conclude that the aspect is not relevant, and summary aspect scores (high, average, low).

**GLOSSARY** – Contains a list of important definitions

#### **APPENDIX**

- Standard Attribute Information Notes (<5 pages for each standard attribute)
- Aspect Information Notes (<3 pages for each aspect)
- Cross-Cutting and High Profile Issue Information Notes (<5 pages each)

**Mtg 6 Agreement 14:** *Section I is intended to be a tool that serves both the governments and the developers needs.*

**Mtg 6 Agreement 15:** *Major guides for decision-making on detailed content recommendations for Sections III and IV will come out of the content-mapping exercises (Mtg6 Action 10) and out of the need to ensure that each section can stand alone as an assessment tool.*

**Mtg 6 Agreement 16:** *The Forum confirmed that they are aiming to produce a measurement tool that captures the spectrum of performance relevant to each aspect. A follow on phase could take*

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

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*the foundation provided by the Hydropower Sustainability Assessment Protocol and go forward to work towards a sector standard of acceptable performance.*

**Mtg 6 Agreement 17:** *The Forum confirmed that in the objective of producing a broadly endorsed measurement tool for sustainable hydropower they are aiming to produce a collaborative IHA/HSAF product, endorsed by all Forum members. This recognises that not all Forum members may wish to continue forward with efforts towards development of a sector standard, and that the process and participation to do this will need to be defined.*

**Mtg 6 Agreement 18:** *The Forum agrees that it will continue working with Sarah Roberts as Consultation Consultant if funding permits her to be re-contracted.*

**Mtg 6 Agreement 19:** *The Forum members agreed to the following Forum work plan changes:*

- *Phase 2 Consultation and Trialling from 1 Aug to 31 Oct 2009;*
- *Meeting 8 in early December 2009;*
- *Meeting 9 in late February 2009; and*
- *Second Forum Status Report in July 2009.*

### HSAF Meeting 6 Summary of Actions

**Mtg 6 Action 1:** *All Forum members to liaise with Michael Fink on potential sources of funding. Michael to coordinate approaches to potential donors and track status.*

**Mtg 6 Action 2:** *The Forum Coordinator will ensure an analysis is undertaken of how the Key Components Document (January 2009) relates to WCD conclusions, and have this presented as a meeting paper at Forum Meeting 7.*

**Mtg 6 Action 3:** *The Forum Coordinator will ensure a high level analysis is undertaken of the type, development requirements, and relative potential relative impact of various implementation and enforcement options for the Protocol, and have this presented as a meeting paper at Forum Meeting 7.*

**Mtg 6 Action 4:** *The Forum Coordinator will ensure follow up with UNEP to better understand the assistance they are offering the Forum.*

**Mtg 6 Action 5:** *The Forum Coordinator will ensure a meeting is set up with the Equator Banks and the International Finance Corporation to better understand the relationship and the potential issues and opportunities between the Protocol and the IFC Performance Standards, and to learn from IFC about how they have designed their standards to be applicable on a global scale.*

**Mtg 6 Action 6:** *The Forum Coordinator will liaise with the Equator Banks to see if they can provide recommendations to the Forum on how the Key Components Document could incorporate the IFC Performance Standards.*

**Mtg 6 Action 7:** *The Forum Coordinator will ensure that the Forum receives input from appropriate sources on how to ensure relevance of the Protocol to small and medium sized hydropower.*

**Mtg 6 Action 8:** *The Forum will review the wording of the Protocol principles to see how the issues raised in consultation can be addressed.*

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

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**Mtg 6 Action 9:** *The Forum Coordinator will ensure that there is a clear user guide process diagram in the Protocol to make it clear that the sections are stand alone. This will provide guidance on how to utilise the Protocol with respect to the different project lifecycle stages, including decommissioning and relicensing.*

**Mtg 6 Action 10:** *The Forum will develop a reference map for the Draft Protocol to illustrate the cross-cutting dimension of various aspects and attributes (e.g. climate change, human rights), and where to find in the document certain concepts or issues that stakeholders have indicated that they are looking for (e.g. shared river basins).*

**Mtg 6 Action 11:** *The Forum Coordinator will draft the Forum's responses to the issues raised in the Phase 1 Consultation Outcomes Report, provide this to Forum members for comment by Monday 16 Mar 09, and Forum members will reply by Wednesday 18 Mar 09. The Forum Coordinator will ensure that both the Phase 1 Consultation Outcomes Report and the Forum Response to the Phase 1 Consultation Issues go on the external website as soon as possible after this.*

**Mtg 6 Action 12:** *The Forum Coordinator will ensure that a Forum stakeholder list will be maintained, and will include those parties who are interested in following progress of the Forum. In the first instance, a notice will be sent to the Forum's stakeholder list that the Phase 1 Consultation Outcomes Report and the Forum Response to the Phase 1 Consultation Issues have been posted on the external website.*

**Mtg 6 Action 13:** *The Forum Coordinator to bring to Forum Meeting 7 options for a standard figure to be utilised when presenting the results of a Draft Hydropower Sustainability Assessment Protocol assessment. This should include options on how to deal with "not applicable" aspects.*

**Mtg 6 Action 14:** *The Forum Coordinator to ensure that standard templates for each of the important Draft Protocol content components are developed and circulated to Forum members for comment and refinement as soon as possible after Forum Meeting 6.*

**Mtg 6 Action 15:** *The Forum members will draft the Section I content trying to address the specific issues raised in the consultation, and reconsider when looking at this draft whether it adequately addresses the concerns raised.*

**Mtg 6 Action 16:** *The Forum Coordinator will ensure that the detailed Section I and II content recommendations listed in the Phase 1 Consultation Outcomes Report are checked when developing the Draft Hydropower Sustainability Assessment Protocol content.*

**Mtg 6 Action 17:** *The Forum Coordinator will ensure that the detailed Section III and IV content recommendations listed in the Phase 1 Consultation Outcomes Report are checked when developing the Draft Hydropower Sustainability Assessment Protocol content.*

**Mtg 6 Action 18:** *The Forum Coordinator to circulate the list of performance indicators and major risks for the HSAF, and get feedback from all Forum members. Review of these will be on the agenda for Forum Meeting 7.*

**Mtg 6 Action 19:** *The Forum Coordinator will ensure that a number of regional approaches are incorporated into the design of the Phase 2 Consultation, and to make it an explicit objective to get good insights from those not well-reflected in the Phase 1 Consultation responses, namely dam-affected peoples, governments and climate change organisations. It is understood that implementation of this plan is budget-dependent.*

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

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- Mtg 6 Action 20:** *The Forum Coordinator will ensure that feedback of stakeholders is sought in the design and planning for the Phase 2 consultation, and will put a Phase 2 Consultation planning document on the Forum website for this purpose. Forum members will review this document before it goes on the website. Care will be taken in the document wording to manage expectations in case additional funding is not forthcoming and the plan cannot be fulfilled.*
- Mtg 6 Action 21:** *The Forum Coordinator to investigate the cost and timing requirements and the in-kind support opportunities around getting documents translated for the Phase 2 Consultation, with particular focus on Spanish, Portuguese, French and Mandarin Chinese.*
- Mtg 6 Action 22:** *Gudni Johannesson to develop a strategy to ensure good government engagement in the Phase 2 Consultation, and to liaise with the Forum Coordinator on the implementation.*
- Mtg 6 Action 23:** *The Forum Coordinator to ensure that recommendations from Meeting Paper 13a, Analysis of Previous Protocol Assessments, are taken into consideration when drafting Protocol content and in development of the trialling plans for the Draft Protocol.*
- Mtg 6 Action 24:** *Joerg Hartmann to take the lead on continuing to develop the Forum’s trialling strategy, in close liaison with the Forum Coordinator and other Forum members.*
- Mtg 6 Action 25:** *Michael Fink to liaise with the Forum donors about the changed schedule and milestones.*
- Mtg 6 Action 26:** *The Forum Coordinator to liaise with Daryl Fields about the proposed meetings to work on draft Protocol content, and circulate information about these to Forum members as soon as possible.*

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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### ATTACHMENT 1 – Draft Example of a Guidance Note for a Standard Process

#### Attribute

#### Quality of Management Planning – Presented by Andrew Scanlon for Discussion during Forum Mtg 6

The quality of management plans and associated planned arrangements are a key measure of present and likely future sustainability performance.

Key components of effective management planning include:

- Issues identification, including identification of baseline condition and identification and analysis of potential impacts.
- Risk assessment of activities that could produce impacts (direct and indirect, positive and negative), and identification and evaluation of any alternatives that may avoid or minimise impacts where there is a significant negative risk.
- Formulation and evaluation of a plan to manage (avoid, minimise, mitigate, compensate) risks, including the establishment of achievable objectives and targets.
- Implementation of the plan, including the use of appropriate and effective methodologies.
- Effective strategies for identifying and managing change.
- Integration with other relevant plans and planned arrangements, including consultation plans.
- Allocation of resources, including appropriateness, scale and capability.
- Checking and evaluation, including monitoring, auditing and management review.
- Continuous improvement, including management of nonconformities, corrective and preventative actions, and plan revision.

#### Scoring

The assessor will need to consider the quality of the overall management planning and the level of performance on each key component.

Score	Performance requirements
5	Suitable, adequate and effective planning, fully integrated into an independently certified, internationally recognised management system. Planned arrangements are continually revised and improved as necessary
4	Suitable, adequate and effective planning, integrated into a management system that would meet recognised international standards. Planned arrangements are regularly revised and improved.
3	Suitable, adequate and effective planning with only non-critical gaps in key components. Planned arrangements are revised and improved.
2	A number of gaps in key components results in plans that are less than suitable, adequate and effective. Significant gaps in the revision and improvement of planned arrangements.
1	A large number of critical gaps in planning. Planned arrangements are not revised or improved.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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### ATTACHMENT 2 – Draft Example of a Guidance Note for an Aspect

#### Environmental Flows and Downstream Sustainability – Presented by David Harrison for Discussion during Forum Mtg 6

##### Introduction: Purpose of Guidance Note.

Downstream effects of dam development have become recognized as a critical aspect for planning and management of large dam infrastructure. Environmental, social and economic impacts have often been underestimated in project planning and design. Because assessment of downstream sustainability involves fairly complex and technical concepts which are rapidly evolving in the field, this guidance note is intended to provide some background into the area and guidance on how to assess projects with respect to environmental flows and downstream sustainability.

##### Description and Background

“Environmental flows” refers to the patterns of flow of water in a river or lake that sustains healthy ecosystems and the goods and services that humans derive from them. International practice for recommending, prescribing and implementing environmental flow releases downstream of hydropower projects has undergone considerable evolution in recent years. Prior sustainability standards have often deferred to whatever downstream flow releases that were acceptable to stakeholders and regulators, without further reference to objective and substantive standards. In general, environmental flows recommendations have become more sophisticated, comprehensive, and scientifically based than earlier practice. Within the community of scientific experts, single minimum flow rate numbers for year-round release have given way to a range of flow levels and components (e.g., high-flow pulses) that are associated with desired ecological, environmental or social-cultural functions {Bunn, 2002 #1842; Poff, 1997 #1100}. While actual operating practice of existing projects may be lagging behind in that evolution, there are numerous examples in which more complex flow patterns are being implemented. {Savannah paper} {Bank Tech Note} (Of course, the importance of having at least continuous base flows in downstream segments that would otherwise be dry should be acknowledged.)

The clear articulation of those *desired flow-related outcomes* is a key step. The term “environmental flows” has come to connote more than just ecological flow-related functions, but to include other social and cultural functions as well. The downstream flow regime below any dam or system of dams will be of defining importance for the full array of environmental, social and economic functions, and hence is referred to here in terms of “environmental flows and downstream sustainability”. These desired outcomes generally are determined for each of the relevant stakeholder interests through a consultative process. Certain threshold requirements may be needed to support the continuity of ecological functioning and of social and cultural survival of humans living in the downstream area; certain flow aspects may be necessary just to allow the functioning of the infrastructure project. It is to be recognized that generally trade-offs will have to be made among these functions. Ideally the process of defining downstream sustainability will go beyond simply balancing the competing functions, but seeking a best fit or an optimization that accomplishes the most of each function that is possible, and all of them at or above desired levels of sustainability.

Current state-of-the-art approaches for environmental flow prescription generally encompass a suite of different environmental flow components, each related to certain desired functions. These environmental flow components typically consist of specific hydrologic events or patterns such as periodic flood flows during the historical flood season; smaller magnitude high-flow pulses, and base

\* Note that agreements reached at a meeting may be revisited and updated at a later meeting based on further information, discussion and analysis.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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flows that approximate natural flow patterns during the low-flow season (e.g., flows that are neither too low *nor* too high). Flow recommendations also prescribe rates of change in flow rates designed to reduce impacts from rapid fluctuations {Postel, 2003 #977}.

### Intent

This intent of this aspect is to ensure that a downstream flow regime is designed to achieve a good fit between biodiversity, habitat, ecosystem services, social and economic objectives, including power and other multi-purpose outcomes of the hydropower facility, taking into account regional and system-wide plans for hydropower and water resources development. It will generally not be likely that 100% of each desired outcome will be able to be achieved – many of these desired outcomes will be at cross-purposes with others. The intention, however, is to try to find a flow regime that is likely to produce the most of each of those purposes, and at or above a level of each that is satisfactory and sustainable over the long run. The intention of the aspect is to assess the degree to which this has been accomplished.

### Elements of Good Practice

While there is not currently a single formally recognized standard of practice in this area, the following steps contribute to an effective flow recommendation process and would generally be recognized as best practice:

- 1. Identification of downstream stakeholders and their flow-related needs.** In addition to environmental health, the flow regime influences a variety of downstream goods and services that have social, cultural and/or economic value. Therefore, a flow recommendation process should be informed by the input of downstream stakeholders who can identify these desired goods and services.
- 2. Assembly of relevant information and analytic tools.** The flow recommendation process should be informed by the available data and information about the river system and the linkages between the flow regime and environmental processes and socially desired goods and services. This information base can include scientific papers (both peer-reviewed and “gray literature”), agency reports and data, and traditional ecological knowledge. It is to be recognized that there may be challenges in implementing these steps because of limitations of data and tools. Gaps in critical information and tools should be identified and addressed as early as possible. While information from the river system in question is the most valuable, such geographically specific information is often not available, and therefore the information base should be augmented by research and information developed within similar river basins, in terms of geology, hydrological patterns, ecosystem types, etc. Where little or no information exists for a river system, traditional ecological knowledge can be particularly important. *[Insert cite to Esselman, Opperman paper]*
- 3. Convene a multidisciplinary workshop of experts.** Because of the complexity of these flow recommendations, it is common practice to convene a multi-disciplinary workshop of experts representing all of the relevant disciplines for a particular river or basin {Richter, 2006 #1442}. This group would review the available data, make preliminary flow recommendations, and/or recommend further scientific studies to reduce uncertainties. They should also identify trade-offs that will need to be considered, and identify a range of options that may be available for consideration. These may include such ideas as habitat enhancement to assure the greatest benefit from environmental flows that are to be released, or additional hydropower generation facilities that are adapted to take advantage of the environmental flows. These experts should

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

represent a broad range of scientific disciplines, including those that can articulate and evaluate the various social and economic functions that are linked to the flow regime [*Insert illustrative list of disciplines*]

- 4. Flow recommendations and adaptive management.** Each flow recommendation (e.g., for a particular flow component such as a small flood) should be defined in terms of magnitude, frequency, duration, season, and rate of change. Further, each recommendation should be linked to a clear desired outcome or objective, which provides a foundation for a monitoring and adaptive management program. For example, a recommendation for a small flood would define the flood in terms of its magnitude, duration, etc. and then describe how the intended outcome is linked to those parameters. A small flood intended to benefit fish spawning on the floodplain would need to define the magnitude at which the river becomes connected to the floodplain, the season during which the focal fish species spawn, the duration required for successful spawning, and the inter-annual frequency required to maintain the fish populations. The objective of maintaining fish spawning could then be monitored, and the linkages between spawning success and flow magnitude, duration, etc. could be studied to allow adaptive refinement of the flow recommendation.
- 5. Integrating flow recommendation with dam operations.** The flow recommendation will need to be translated into terms that dam operators can effectively incorporate into their operation plans and decisions. For example, the release of certain recommended flow components could be triggered based on inflow data and reservoir levels. When incorporating flow recommendations into the operation plan, dam managers should examine potential synergies between environmental flows and other sectors, such as water supply, flood control, and floodplain management.
- 6. Relationship to system planning.** The flow recommendations for a single project should be considered in the context of an overall system. For example, a comprehensive regional planning process may result in a strategy in which much of the desired conservation and social value outcomes are accomplished through the establishment of freshwater conservation management areas. An individual dam built pursuant to this plan may therefore have a reduced need to maintain the full suite of environmental processes, goods and services in its downstream reach, in view of sustainability services being provided elsewhere in the basin. Therefore, such a dam may have reduced environmental flow requirements compared with a dam developed in the absence of a regional plan.
- 7. Governance and compliance.** A regulatory system sufficient to enforce environmental flow provisions will be in place or alternative arrangements made to ensure compliance with environmental flow commitments. This will include monitoring and reporting of flows against the environmental flow requirement.
- 8. Monitoring and adaptive management.** A system of monitoring of measures that reflect or predict the condition of the desired outcomes, and a system for regular evaluation that information and making adjustments in operations will be instituted.

### Important attributes specific to this attribute and how to score them

In Section II of the protocol it is contemplated that a project or system of projects is being proposed and planned. Final arrangements for environmental flows likely will not have been completed, but will

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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be in progress. The assessment of attributes will focus on those activities committed to and in process and the likelihood that they will produce the intended results.

### Aspect-Specific Process Attributes

#### **Best Practice**

- *Comprehensive plans and process have been specified for researching and defining desired outcomes for environmental flow management, based on ecosystem requirements, social and cultural requirements and stakeholder concerns and needs. A comprehensive stakeholder identification and outreach process has been conducted. [This last sentence may be redundant with the standard attribute on planning]*
- *Specific recommendations for environmental flow management, ranging from low flows to floods, necessary to attain all desired outcomes will be defined by an inter-disciplinary expert team with all necessary data, state-of-the-art methods and tools, at hand. Traditional ecological knowledge and stakeholder input will be included.*
- *A state-of the art monitoring program to track environmental flow outcomes is planned and will be put in place in order to inform adjustments in environmental flow management needed to move toward desired outcomes, and institutional arrangements for implementing adaptive management will be put into place with adequate resources*

#### **Good Practice**

- *Plans and process have been specified for researching and defining desired outcomes for environmental flow management, based on ecosystem requirements, social and cultural requirements and stakeholder concerns and needs. A stakeholder identification and outreach process has been conducted. [This last sentence may be redundant with the standard attribute on planning]*
- *Specific recommendations for environmental flow management, ranging from low flows to floods, necessary to attain most desired outcomes will be defined by an inter-disciplinary expert team with all available data, using readily available methods and tools. Traditional ecological knowledge and stakeholder input will be included.*
- *A good monitoring program to track environmental flow outcomes will be planned in order to inform adjustments in environmental flow management, and a commitment to adaptive management will be made.*

### Aspect-Specific Performance Attribute

#### **Best Practice**

- *A regulatory system sufficient to enforce environmental flow provisions is in place; alternatively third party enforceable commitments for sustaining e-flows are in place.*

#### **Good Practice**

- *A regulatory system sufficient to enforce environmental flow provisions is in place; alternatively the project proponent has committed to negotiate and enter into a third party enforceable commitments for sustaining e-flows are in place.*

### Objective Evidence [Insert here instead of at foot of Aspect scoring sheet?]

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

---

- Reports of environmental flow recommendation process.
- Regional or system-wide development plans that provide the context for objectives for environmental flows at the proposed project.
- Environmental Management Plan.
- Licenses or permits for the project that explicitly include provisions on environmental flows and monitoring requirements

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

---

### ATTACHMENT 3 – Draft Example No.1 of Mapping of a Cross-Cutting Issue

#### Climate Change – Presented by Joerg Hartmann for Discussion during Forum Mtg 6

Mapping Climate Change against the HSAF SAP Aspects Presently in Key Components Document:

- 3 aspects under Section 1
- 14 aspects under Section 2

#### Section 1 – Strategic Assessments

- **Demonstrated needs:** how will the need for energy and water services evolve with CC? (example: higher energy consumption for ACs?)
- **Options assessment:** how do the various options to provide energy and water services look under CC? (example: changes in runoff, higher evaporation from reservoirs?)
- **Regional and National Policies and Plans:** does the proposed hydro project comply with / fit into / contribute to mitigation and adaptation plans? (example: renewable energy targets?)

#### Section 2 – Project Preparation

- **Demonstrated need:** how will the need for energy and water services evolve with CC? (example: higher consumption for ACs?)
- **Transboundary issues:** how will downstream water needs or regional energy needs evolve with CC? (example: see above)
- **Site selection and design optimisation:** how does the project take expected higher or lower, or more variable flows, or higher sedimentation into account? (example: safety requirements for higher floods?)
- **Economic and financial viability:** does the project benefit from carbon finance or other renewable energy subsidies? how will the evolving hydrological conditions influence viability? (example: lower output once glaciers have melted?)
- **Management of the hydrological resource:** how will CC affect hydrology and how does the project deal with the associated uncertainty? Is the project designed to contribute optimally to CC mitigation?
- **Social impact assessment / social management plan:** can CC be expected to affect local socio-economic conditions and is the project geared to assist in adaptation? (example: increased need for irrigation water or flood control?)
- **Public Health:** can CC be expected to affect public health impacts of the project? (example: malaria in reservoirs?)
- **Environmental Impact Assessment / Environmental Management Plan:** can CC be expected to affect ecosystem services and biodiversity, and does the project assist in adaptation?
- **Catchment Management:** how will CC influence vegetation and land use in the catchment? (example: reduced or increased cropping potential?)
- **Reservoir Management:** to what extent does the reservoir release greenhouse gases, and how can reservoir **design** and **management** mitigate such releases? how can CC be expected to affect physical and chemical water characteristics, and biological processes in the reservoir,

## HSAF Meeting 6 – Turkey

### Final Meeting Minutes

---

and how can reservoir design and management assist in adaptation? (example: multi-level intakes to release water at appropriate temperatures?)

- **Environmental Flows & Downstream Sustainability:** how is CC expected to affect downstream environmental water requirements, and are appropriate adaptive mechanisms built into the design and operating rules of the project? (example: rules for safeguarding e-flows?)
- **Biodiversity, Habitats & Protected Areas:** is CC expected to move species ranges and is the project designed to minimize impacts on connectivity and thermal refugia? (example: can migratory fish reach cool spawning grounds?)
- **Pest & Invasive Species:** is CC expected to favor invasive species and is the project designed to minimize impacts? (example: will water hyacinths thrive in warmer waters?)
- **Sedimentation & Erosion:** is CC expected to increase erosion and is the project designed to deal with / mitigate the impacts? (example: will there be more extreme rain events?)

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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### ATTACHMENT 4 – Draft Example No.2 of Mapping of a Cross-Cutting Issue

#### Integrated Water Resource Management – Presented by Daryl Fields for Discussion during Forum Mtg 6

Hydropower lies at the nexus of energy and water management. Sustainable hydropower, therefore, must address both aspects of sustainable energy and sustainable water resources management. Integrated water resources management in the context of hydropower means recognition and integration of irrigation, flood management, navigation, drinking water, cultural uses, aquatic habitats, as examples of the diversity and complexity of non-power water uses. This dual role may present both opportunities and challenges; infrastructure can help manage variable hydrology, but it also may raise or exacerbate conflicting water uses and trade-offs. In addition, the scope for sustainable water management can extend beyond the project level (such as environmental flows, reservoir management) to basin issues (such as cascade management, transboundary issues).

Integrated water resources management must be woven through multiple aspects of hydropower planning, project identification, construction and operations. It is, therefore, treated as a cross-cutting issue in the Protocol, affecting most aspects. The purpose of this note is to map out how this critical cross-cutting issue is embedded in the relevant sections, aspects and attributes of the Protocol. The most important aspects for water resources management are:

#### Section I

- **Regional/national policies and plans:** A critical component of regional/national policies and plans is management of water at the basin level. This includes:
  - water related policies including international agreements, national policies, and local water management;
  - basin planning or strategic environmental assessments by identifying opportunities for managing for water to highest value (in functional terms), balancing conflicting water uses, assessing opportunities for multi-purpose design and operations, and taking into account cumulative impacts of basin-wide patterns of infrastructure development (including cascade developments) on bio-diversity, ecosystems, social and cultural values.
  - provisions for adapting water management over time.

#### Section II, III, IV: Economic/Financial/Technical/Governance

- **Transboundary issues:** Water is most appropriately managed at the basin level, which often cuts across national borders.
- **Site selection and Design Optimization:** This aspect emphasizes that site selection should be linked with water management issues, including extending beyond energy aspects of site selection. It also addresses the implications of climate-driven changes in hydrology and, in particular, infrastructure design to meet changes in water management priorities in the long term.
- **Management of hydrological resource:** This aspect is inherently about water management. It includes both maximizing the energy value of available water, and the operating regime to address other water uses and allocations.

# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

### Section II,III, IV: Social Aspects

- **Social impact assessment:** Livelihoods and community well-being of local communities are likely to be intertwined with river and water management, either through ecosystem services (e.g., fishing) or cultural practices (e.g., cremation ceremonies). SIA should identify these linkages both upstream and downstream) and integrate into the Social Management Plan.
- **Project benefits:** Water management can enhance livelihoods and project benefits, especially (and necessarily) on transboundary rivers.

### Section II, III, IV : Environmental Issues

- **Environmental Impact Assessment:** Project EIA should be carried out with appropriate consideration given to basin wide water management planning. Where there is weakness or absence of that planning a developer should risk-assess the situation, particularly in relation to threshold and cumulative impacts.
- **Reservoir Management:** Aspect primarily focused on reservoir, not basin. Operation of reservoir subject to influences of other users upstream and downstream in the basin
- **Environmental Flows and Downstream Sustainability:** Downstream economic, social and environmental objectives need to factor in whole of basin issues.

## Appendix XX.X Integrated Water Resources Management Transboundary Issues Mapping to Protocol Aspects

Table XX.X summarizes the linkages between both integrated water resources management and transboundary issues with all aspects in the Protocol. Aspects in bold are core to the hydropower/water resources management/transboundary nexus. Because of the continuity of aspects across sections of the Protocol, the table groups aspects under “Economic/Technical/Governance”, “Social” and “Environmental”. Section I aspects are addressed together.

**Table XX: Mapping Integrated Water Resources Management and Transboundary Issues to the Protocol**

### WORKING TABLE: REFINEMENTS TO ASPECTS/ATTRIBUTES FOR IWRM

Relevant aspects	Linkage to IWRM	Changes needed to current aspects and attributes? <i>(delete this column once changes are made)</i>
<b>SECTION I: STRATEGIC ASSESSMENT</b>		
Demonstrated need	Demonstrated need includes water needs from the range of users (human, economic and ecological). Good practice involves understanding the water resource and the range of activities and resources which depend on water.	Minor change/Guidance note: <ul style="list-style-type: none"> <li>• Energy need should be at market level (e.g. grid level); It should consider full range of services (incl. ancillary services) and how hydropower could support other energy sources (such as intermittent renewables, wind and solar)</li> <li>• Water needs should be at basin level</li> </ul>
Options	Options assessment includes comparison of	Minor change/Guidance note:

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

assessment	different options across water management criteria, and the opportunity to rehabilitate existing water infrastructure for energy and water as a resource option.	<ul style="list-style-type: none"> <li>• Should consider water to highest value function</li> <li>• Should consider rehabilitation/reconfiguration of existing plants as possible option</li> <li>• Stakeholders extend to water users (incl. WUAssoc), riparians (incl. transboundary)</li> </ul>
Reg/Nat policies and plans	<p>A critical component of regional/national policies and plans is management of water at the basin level. This includes:</p> <ul style="list-style-type: none"> <li>• water related policies including international agreements, national policies, and local water management;</li> <li>• basin planning or strategic environmental assessments by identifying opportunities for managing for water to highest value (in functional terms), balancing conflicting water uses, assessing opportunities for multi-purpose design and operations, and taking into account cumulative impacts of basin-wide patterns of infrastructure development (including cascade developments) on bio-diversity, ecosystems, social and cultural values.</li> <li>• provisions for adapting water management over time.</li> </ul>	<p>Revision:</p> <ul style="list-style-type: none"> <li>• Add process and performance attributes specific to IWRM: <ul style="list-style-type: none"> <li>○ Risks and opportunities for other water users, multi-purpose, benefits-sharing through water management</li> <li>○ Degree of fit or consistency with basin-wide or regional development plans developed through IWRM</li> <li>○ Hydrologic analysis including climate change</li> <li>○ Design flexibility to address uncertainties re: climate change, IWRM priorities over time</li> <li>○ Stakeholders include water users</li> </ul> </li> </ul>
Institutional capacity	Appropriate technical and institutional capacity and commitment in organizations responsible for water resources management and engineering is needed to support policies, programmes, monitoring, enforcement and adaptive management.	<p>Minor change/Guidance note:</p> <ul style="list-style-type: none"> <li>• Ensure institutional capacity to undertake water planning and policy development/implementation</li> <li>• Capacity to enforce water policies and plans</li> </ul>
Political risk	Transboundary water management, including across state borders, may necessitate political frameworks or action and hence political risk.	<p>Minor change/Guidance note:</p> <ul style="list-style-type: none"> <li>• Include transboundary water management as a political risk</li> </ul>
<b>SECTION II, III, IV: ECONOMIC/FINANCIAL/TECHNICAL/GOVERNANCE</b>		
Demonstrated need	Hydropower will affect and can address water management as well as energy needs, and both need to be articulated and balanced.	<p>Revision to name</p> <p>Minor change/Guidance note:</p> <ul style="list-style-type: none"> <li>• Development objectives/need/policies and plans include IWRM-related</li> <li>• Stakeholders extend to water users (incl. WUAssoc), riparians (incl. transboundary)</li> <li>• Regulators include water regulators and regulators in water-using sectors</li> <li>• Evidence: IWRM/Basin plans, Water policies</li> </ul>
Public sector governance	Relevant governance includes governance specific to water management and water-using sectors/industries.	<p>Minor change/Guidance note:</p> <ul style="list-style-type: none"> <li>• Capacity includes water management (incl. hydrologic analysis, IWRM planning, enforcement of water policies and plans)</li> </ul>
Transboundary issues	Water is most appropriately managed at the basin level, which often cuts across national border.	<p>Revise:</p> <ul style="list-style-type: none"> <li>• Include comment re: seeking/enhancing mutual benefits through water management, benefits-sharing and joint development/management (process and performance)</li> <li>• Add process of review and adaptation of treaties for changing</li> </ul>

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

		hydrology/IWRM priorities
Regulatory approval	Relevant regulations include those specific to water and water-using sectors/industries.	Minor change/Guidance note: <ul style="list-style-type: none"> <li>• Include water-based regulators, including from other sectors</li> </ul>
Site selection	This aspect emphasizes that site selection should be linked with water management issues, including extending beyond energy aspects of site selection. It also addresses the implications of climate-driven changes in hydrology and, in particular, infrastructure design to meet changes in water management priorities in the long term.	Revision: <ul style="list-style-type: none"> <li>• Add process and performance attributes specific to IWRM: <ul style="list-style-type: none"> <li>○ Risks and opportunities for other water users, multi-purpose, benefits-sharing through water management</li> <li>○ Hydrologic analysis including climate change</li> <li>○ Design flexibility to address uncertainties re: climate change, IWRM priorities over time</li> </ul> </li> <li>• Stakeholders include water users</li> </ul>
Corporate governance	In this aspect, the Protocol explores the capacity of the developer to undertake water-related analysis and management.	Minor change/Guidance note: <ul style="list-style-type: none"> <li>• Risk assessment and management processes include: <ul style="list-style-type: none"> <li>○ Riparian relations</li> <li>○ Hydrologic variability</li> <li>○ Reporting on flows and water management compliance (internal/external)</li> <li>○ Internal management responsibilities for water management</li> </ul> </li> <li>• Examples of evidence: <ul style="list-style-type: none"> <li>○ Flow records</li> <li>○ Information flow, root cause analysis and decision process for non-compliance on water management</li> </ul> </li> </ul>
Economic viability	Water availability and variability (including climate change) affect economic viability and risk while proactive water management can produce benefits that have economic value.	Minor change/Guidance note: <ul style="list-style-type: none"> <li>• Includes: <ul style="list-style-type: none"> <li>○ Uncertainty due to climate change</li> <li>○ Value of multi-purpose functions (and IWRM functions)</li> <li>○ Value as adaptation mechanism</li> </ul> </li> </ul>
Financial viability	Water availability and variability (including climate change) affect financial viability and risk while proactive water management can produce benefits that could be converted to financial value to the developer.	Minor change/Guidance note: <ul style="list-style-type: none"> <li>• Includes: <ul style="list-style-type: none"> <li>○ Uncertainty due to climate change</li> <li>○ Value of multi-purpose functions (and IWRM functions)</li> </ul> </li> </ul> <p>Value as adaptation mechanism</p>
Management of hydrologic resource	This aspect is inherently about water management. It includes both maximizing the energy value of available water, and the operating regime to addresses other water uses and allocations.	Revision: <ul style="list-style-type: none"> <li>• Enhance references to integrated water management</li> <li>• Add monitoring/adaptive management driven by IWRM needs</li> </ul>
Construction Management	Not applicable	
Procurement	Not applicable	
Markets, Innovation and Research	Emerging innovation and research in water management is important to continuous improvement, revenue maximization and risk management over time.	Minor changes/Guidance note:
Asset Reliability and Efficiency	Water management can affect asset reliability and efficiency through a number of avenues such as sedimentation management, linkages with livelihoods, and changes in hydrology (e.g., due to climate change). Rehabilitation of assets encompasses both the impact of changes water availability as well as changes in water management priorities through reoperation.	Minor changes/Guidance note:

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

<b>SECTION II, III, IV: SOCIAL ASPECTS</b>		
Social Impact Assessment	Livelihoods and community well-being of local communities are likely to be intertwined with river and water management, either through ecosystem services (e.g., fishing) or cultural practices (e.g., cremation ceremonies). SIA should identify these linkages both upstream and downstream) and integrate into the Social Management Plan.	Minor change/Guidance note: <ul style="list-style-type: none"> <li>Make linkages between social impact and water use explicit in description and relevant attributes</li> </ul>
Social Management Plan	See above	Minor change/Guidance note: <ul style="list-style-type: none"> <li>Make linkages between social management and water use explicit in description and relevant attributes</li> </ul>
Cultural Heritage	Not applicable	
Indigenous Peoples	See above. In addition, access to water and/or fruits of water services may be entrenched in legal or international requirements	Minor change/Guidance note: <ul style="list-style-type: none"> <li>Make linkages between indigenous peoples and water use explicit in description and relevant attributes</li> <li>Include reference to river resources in basin context and cultural livelihoods</li> </ul>
Public Health	<b>REQUIRES FURTHER LOOK</b>	
Resettlement	See Social Impact Assessment above. In addition, grievance mechanisms should include water-related issues	Minor change/Guidance note: <ul style="list-style-type: none"> <li>Make linkages between resettlement and water use explicit in description and relevant attributes</li> <li>Complaints mechanism should include access to water issues</li> </ul>
Community Acceptance	Livelihoods and community well-being are likely to be closely tied to river and water management; hence, community acceptance will depend on how this linkage is addressed by the project (e.g., through environmental flows, reservoir management, compensation, benefits-sharing, etc.)	Minor change/Guidance note: <ul style="list-style-type: none"> <li>Include all communities affected by changes in water management (e.g., downstream communities)</li> </ul>
Asset and Community Safety	Not applicable	
Labour and Working Conditions	Not applicable	
Communications	<b>DEFER</b>	
Project Benefits	Water management can enhance livelihoods and project benefits, especially (and necessarily) on transboundary rivers.	Revision: <ul style="list-style-type: none"> <li>Proactive water management provides a way to provide benefits from the project (e.g., irrigation and move to higher value crops)</li> <li>Basin-wide sharing of benefits will be needed particularly for transboundary rivers</li> </ul>
Suppliers and Service Providers	Because activities of suppliers and service providers may impact water management, contractual and performance obligations should consider social linkages as identified in the social assessment and management plan.	
<b>SECTION II,III,IV: ENVIRONMENTAL ASPECTS</b>		
Environmental Impact Assessment	Project EIA should be carried out with appropriate consideration given to basin wide water management planning. Where there is weakness or absence of that planning a	Too many process attributes, but several relevant to IWRM. IWRM considerations need to be factored into Guidance Note

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

	developer should risk-assess the situation, particularly in relation to threshold and cumulative impacts.	
Environmental Management Plan	EMP leads on from EIA. Same issues are relevant.	Too many process attributes, but several relevant to IWRM. IWRM considerations need to be factored into Guidance Note. Specific performance attribute of highest relevance is one on integration with other aspects
Catchment Management	Present wording needs to be adjusted to ensure practicability for developers is recognized, ie. control versus influence	Guidance Note
Reservoir Management	Aspect primarily focused on reservoir, not basin. Operation of reservoir subject to influences of other users upstream and downstream in the basin	Guidance Note
Environmental Flows and Downstream Sustainability	Downstream economic, social and environmental objectives need to factor in whole of basin issues.	Impacts and trade-offs in other parts of the basin need to be considered in planning downstream flows. Guidance Note.
Biodiversity, Habitats, and Protected Areas	Biodiversity issues need to be looked at on a whole of basin basis. Opportunities for maximizing value in relation to identification of protected areas and compensatory habitat development if done on a whole of basin basis.	Guidance Note.
Pest and Invasive Species	Most focus on specific project, but clear benefits in addressing prevention of pest and invasive species issues close to the source and on a whole of basin basis.	Guidance Note.
Sedimentation and Erosion	Clear benefits in whole of basin planning to address this issue. Upstream storage will provide benefits for all others in a downstream cascade. Consideration should be given to financial rewards associated with delivering benefits to others.	Guidance Note.
Waste, Noise, Air Quality Management	Not applicable	

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# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

### ATTACHMENT 5 – Draft Example of 2-Page Aspect Template - Section II Cultural Heritage Aspect (under development)

**ASPECT NAME:** SECTION II CULTURAL HERITAGE

**DESCRIPTION:** This aspect addresses the level of impact and planning for protection and conservation of tangible and intangible forms cultural heritage. This aspect is important because cultural heritage artefacts can be damaged or lost through the physical landscape changes brought about by hydropower project construction and operation, as well as through associated infrastructure impacts (e.g. new roads, transmission lines). Furthermore, non-physical cultural heritage such as traditions, festivals and rituals can also be impacted through hydropower project impacts to local communities.

**INTENT:** Cultural heritage is identified, recognised and addressed.

**SAMPLE ASSESSMENT QUESTIONS:**

- xxx
- xxx
- xxx
- xxx

**NOTES ON STANDARD ATTRIBUTES:**

xxx

xxx

**ASPECT SPECIFIC SCORING INSTRUCTIONS:**

Attribute	Level 1	Level 2	Level 3	Level 4	Level 5
Level of protection of cultural heritage	xxx	xxx	xxx	xxx	xxx

**EXAMPLES OF OBJECTIVE EVIDENCE:**

- Heritage impact statements
- Conservation plans
- Heritage plans and agreements

**CRITERIA TO BE MET FOR ASPECT TO BE CONSIDERED NOT APPLICABLE:** xxx

(xxx means to be filled in)

**ASPECT NAME:** SECTION II CULTURAL HERITAGE

**AUDITORS COMMENTS ON RELEVANCE OF THE ASPECT TO THE PROJECT BEING ASSESSED:**

\_\_\_\_\_

\_\_\_\_\_

**SCORE:**

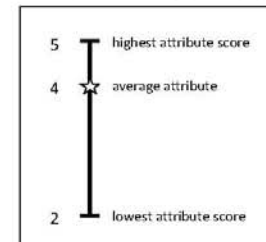
Process Attribute	Level (1-5)	Auditor's Comments
Quality of the Assessment Process <sup>1</sup>		
Quality of the Management Planning <sup>1</sup>		
Appropriateness of the Resource Capacity <sup>1</sup>		
Quality of the Consultative Process <sup>1</sup>		
Performance Attribute	Level (1-5)	Auditor's Comments
Level of Stakeholder Support <sup>1</sup>		
Level of Protection of Cultural Heritage <sup>2</sup>		

<sup>1</sup> Refer to Standard Attribute Scoring Instructions (pages x-x) plus notes opposite page

<sup>2</sup> Refer to aspect-specific scoring instructions opposite page

**OVERALL SCORE:**

(example only)



# HSAF Meeting 6 – Turkey

## Final Meeting Minutes

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