



A general introduction to the
Hydropower Sustainability Assessment Protocol

2017, Asian Development Bank, Manila, Philippines

The Protocol

What is it?

- A **definition** of sustainability in hydropower, covering ~20 sustainability topics
- An assessment **methodology** designed for all stages of project development
- **Multi-stakeholder**, internationally-agreed, and globally-applicable
- **Governed** by a council, and terms and conditions

What is it for?

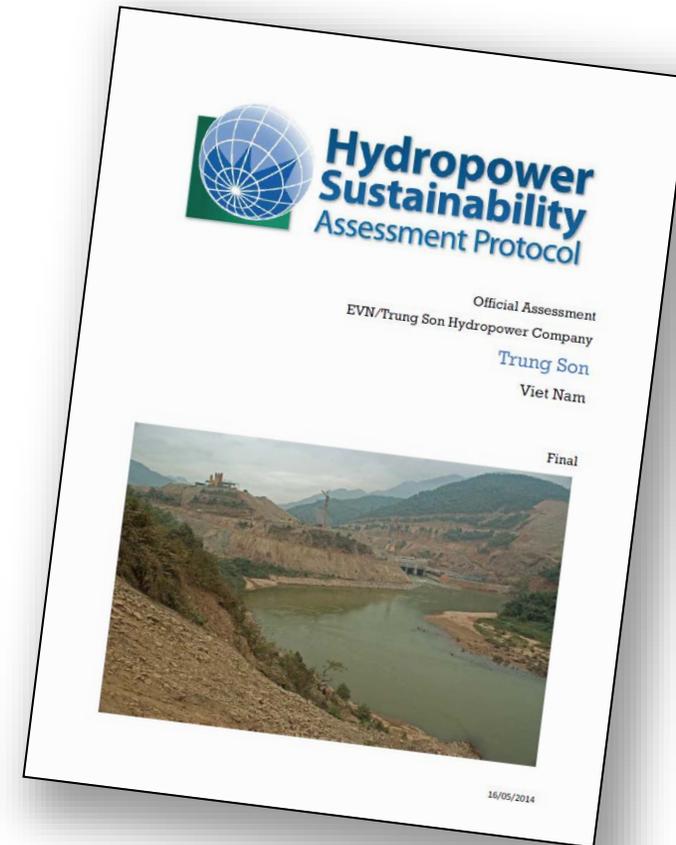
- **Assessment** of sustainability in hydropower
- A neutral platform for **dialogue**
- Identification and **targeting** of gaps in performance

To advance sustainable hydropower globally and ensure hydro contributes to a low carbon future



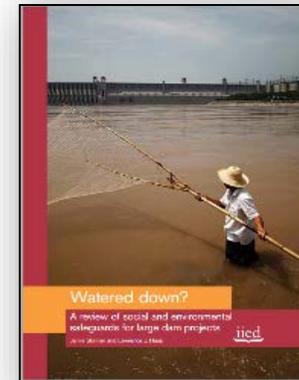
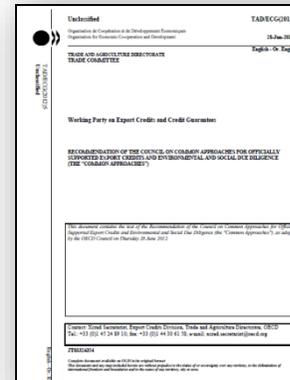
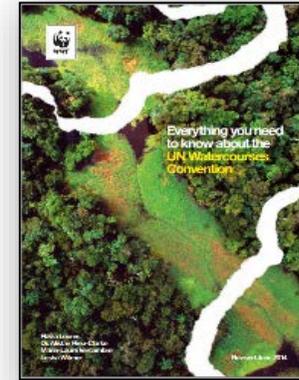
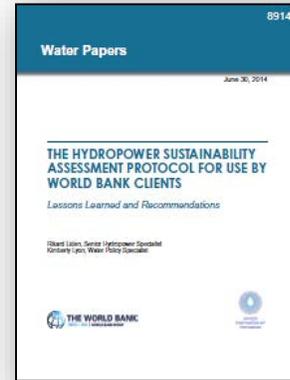
Added value

- Independent review of sustainability issues
- Comparison with international practice
- Management of sustainability issues
- Communication with stakeholders
- Facilitating access to **finance** and **markets**

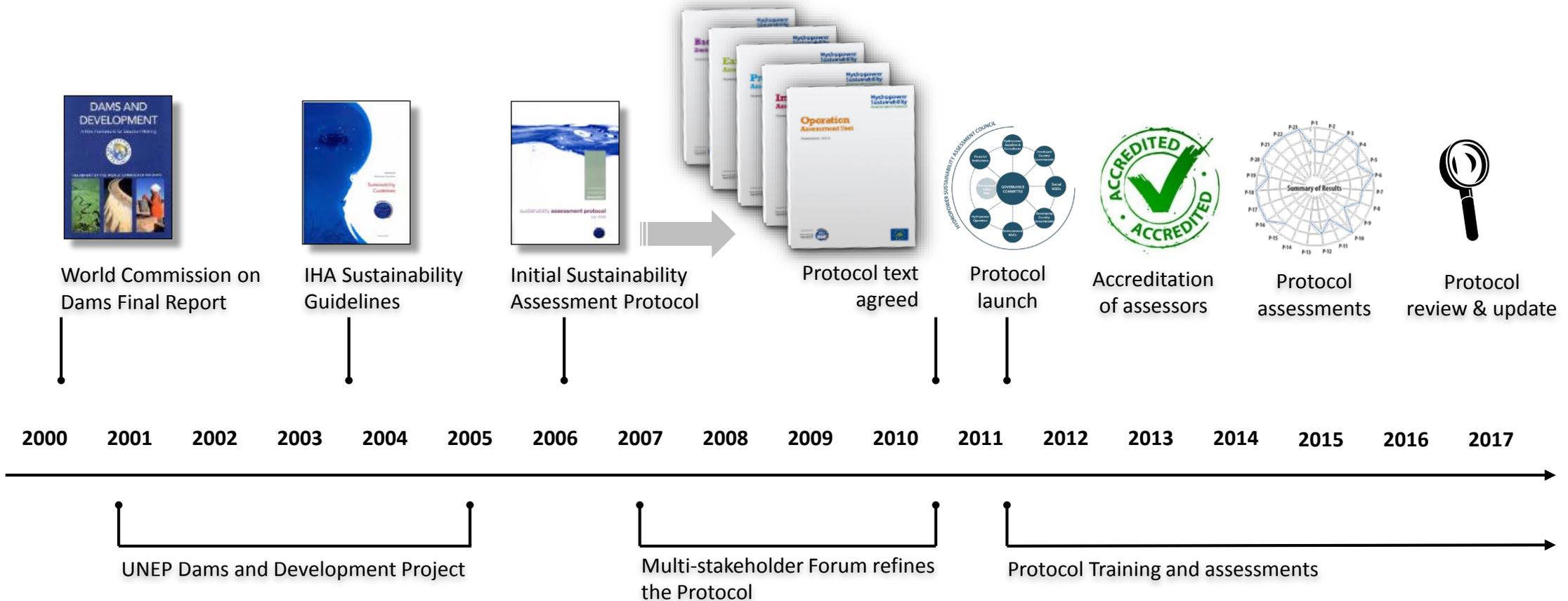


Protocol reviews:

- **World Bank:** The Protocol for Use by World Bank Clients: Lessons Learned and Recommendations.
- **WWF:** Everything you need to know about the UN Watercourses Convention
- **OECD Working Party on Export Credits:** Common Approaches on Environmental and Social Due Diligence
- **IIED:** A review of social and environmental safeguards for large dam projects



Development of the Hydropower Sustainability Assessment Protocol



Protocol structure

TOOLS	4	There are four tools corresponding to project stage
TOPICS	23	Each tool consists of up to 23 topics
CRITERIA	6	Up to six criteria are used to assess each topic: <ul style="list-style-type: none">• Assessment• Management• Stakeholder Engagement• Stakeholder Support• Conformance and Compliance• Outcomes
SCORING STATEMENTS	2	Each criterion is assessed against two levels: <ul style="list-style-type: none">• Basic Good practice• Proven Best practice



Four tools



The **early stage tool**, a screening tool for potential hydropower projects.

The **preparation tool**, which covers planning and design, management plans and commitments.

The **implementation tool**, used through the construction phase.

The **operation tool**, used on working projects.



Up to 23 topics – (ii)

Topic	P	I	O
Communications and Consultation	●	●	●
Governance	●	●	●
Demonstrated Need and Strategic Fit	●		
Siting and Design	●		
Environmental and Social Impact Assessment and Management / Env. and Social Issues Management	●	●	●
Integrated Project Management	●	●	
Hydrological Resource	●		●
Asset reliability and efficiency			●
Infrastructure Safety	●	●	●
Financial Viability	●	●	●
Project Benefits	●	●	●
Economic Viability	●		
Procurement	●	●	

Topic	P	I	O
Project Affected Communities and Livelihoods	●	●	●
Resettlement	●	●	●
Indigenous Peoples	●	●	●
Labour and Working Conditions	●	●	●
Cultural Heritage	●	●	●
Public Health	●	●	●
Biodiversity and Invasive Species	●	●	●
Erosion and Sedimentation	●	●	●
Water Quality	●	●	●
Waste, noise and air quality		●	
Reservoir Planning / Preparation and Filling / Management	●	●	●
Downstream Flow Regimes	●	●	●



Is it possible to group the topics?

Business

- Governance
- Procurement
- Integrated project management
- Financial viability
- Economic viability

Technical

- Demonstrated need and strategic fit
- Siting and design
- Hydrological resource
- Asset reliability and efficiency
- Infrastructure safety

Social

- Communications and consultation
- Project benefits
- Project affected communities and livelihoods
- Resettlement
- Indigenous peoples
- Labour and working conditions
- Public health
- Cultural heritage

Environmental

- Environmental and social assessment and management
- Biodiversity and invasive species
- Erosion and sedimentation
- Water quality
- Waste, noise and air quality
- Reservoir management
- Downstream flow regimes



Cross-cutting issues

- Climate change
- Human rights
- Gender
- Grievance Mechanisms
- Integrated Water Resource Management
- Legacy Issues
- Livelihoods
- Multi-Purpose Projects
- Transboundary Issues
- Transparency



Up to 6 criteria

Each topic includes up to six criteria:

-  • Assessment
-  • Management
-  • Stakeholder Engagement
-  • Stakeholder Support
-  • Conformance / Compliance
-  • Outcomes

3

Assessment: Issues that may affect indigenous peoples in relation to the project have been identified through an assessment process utilising local knowledge; and monitoring of project impacts and effectiveness of management measures is being undertaken during project implementation appropriate to the identified issues.

Management: Measures are in place to address identified issues that may affect indigenous peoples in relation to the project, and to meet commitments made to address these issues; and formal agreements with indigenous peoples are publicly disclosed.

Stakeholder Engagement: Ongoing and mutually agreed processes are in place for indigenous peoples to raise issues and get feedback.

Stakeholder Support: Directly affected indigenous groups generally support or have no major on-going opposition to the plans for issues that specifically affect their group.

Conformance/Compliance: Processes and objectives relating to issues that may affect indigenous peoples have been and are on track to be met with no major non-compliances or non-conformances, and any indigenous peoples related commitments have been or are on track to be met.

Outcomes: Plans provide for major negative impacts of the project to indigenous peoples and their associated culture, knowledge, access to land and resources, and practices to be avoided, minimised, mitigated or compensated with no significant gaps, and some practicable opportunities for positive impacts to be achieved.



Two levels

Basic good practice

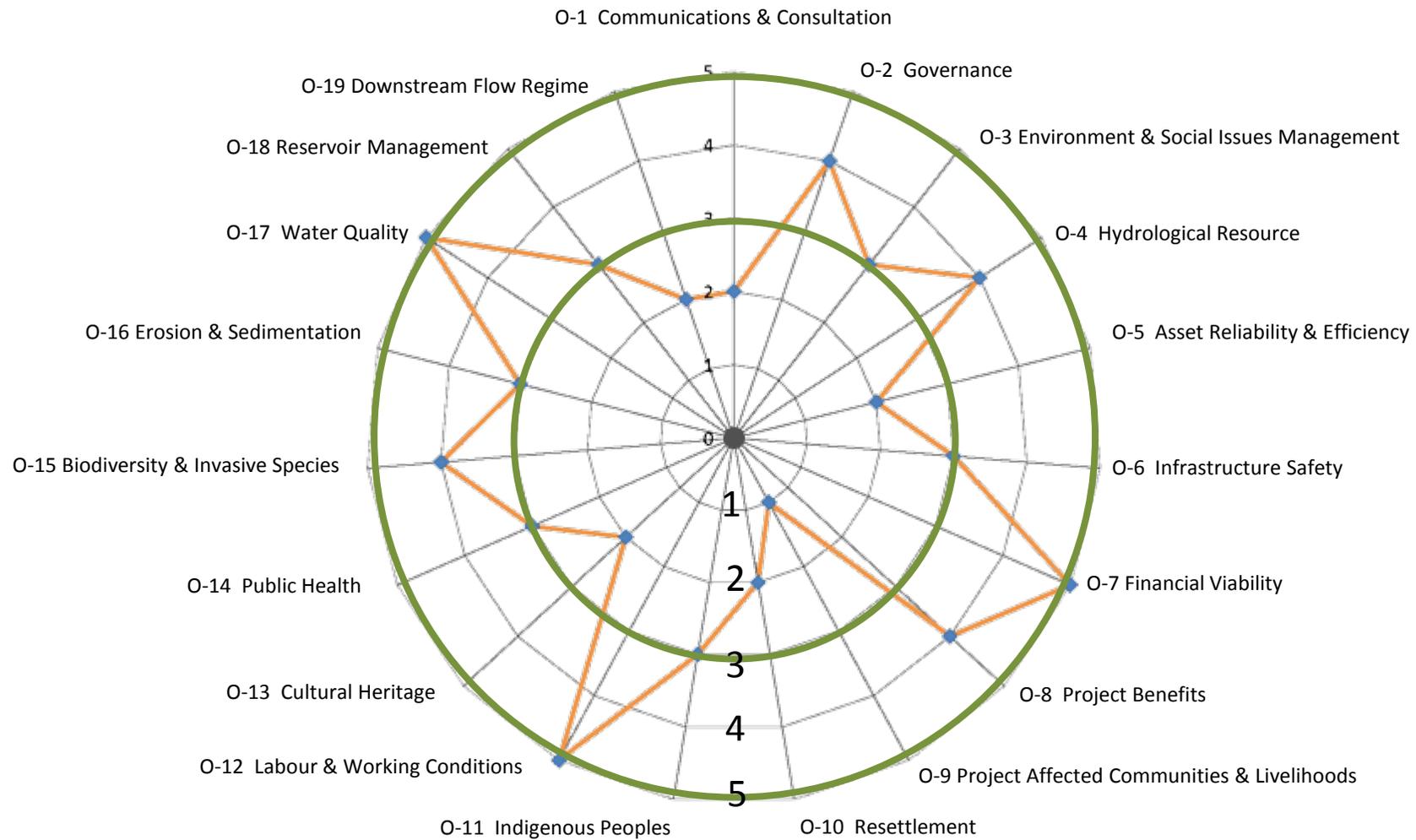
- Projects in all contexts should be working toward basic good practice
- A level to aim for

Proven best practice

- Goals that are not easy to reach
- Proven to be attained in multiple country contexts, and not only by large projects
- Difficult to reach, because practical decisions need to be made on priorities

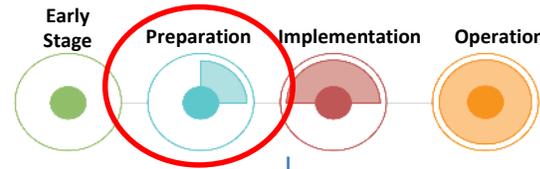


Scoring allows clear presentation of results



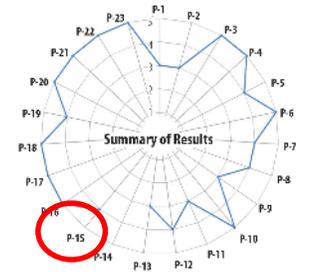
1. Stage

Choose stage of a hydropower project



2. Topic

Choose one of 23 topics



Preparation

P-13 Project-Affected Communities & Livelihoods

3. Criteria

Assess according to 6 criteria

- Assessment
- Management
- Stakeholder engagement
- Stakeholder support
- Conformance / compliance
- Outcomes

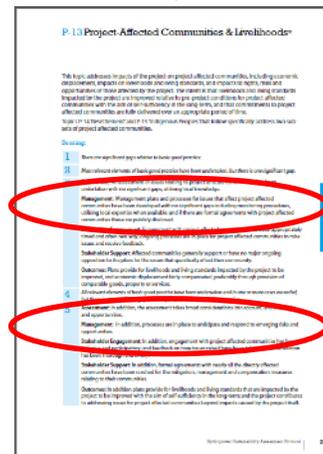
Assessment

4a. Good Practice Scoring statement

Assess criteria at basic level

4b. Best practice Scoring statement

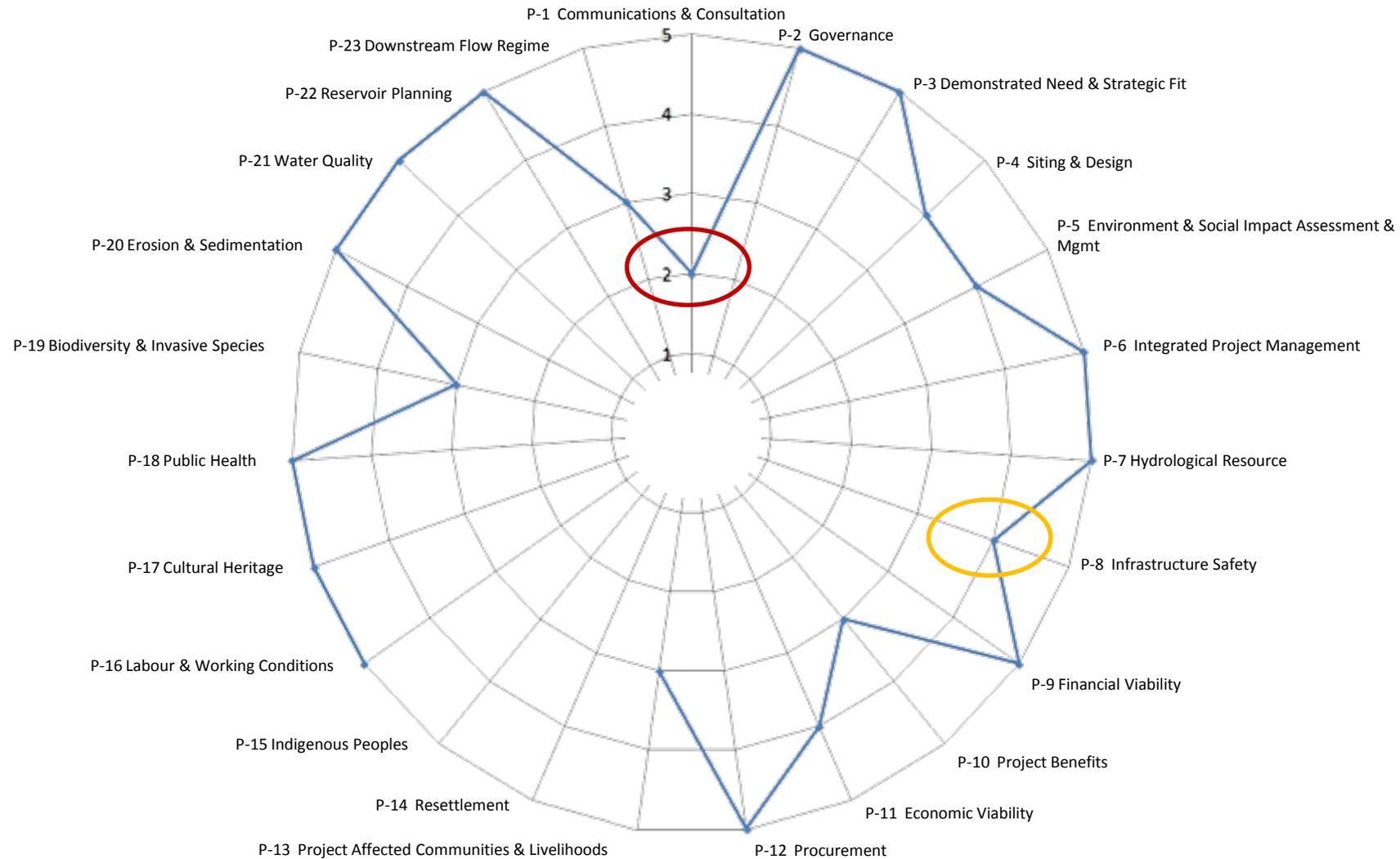
Assess criteria at best practice level



“An assessment of issues relating to project affected communities has been undertaken with no significant gaps, utilising local knowledge.”

“In addition, the assessment takes broad considerations into account, including both risks and opportunities.”

Using the Protocol



Using the Protocol

	Level 3: Significant Gaps against Basic Good Practice	Level 5: Significant Gaps against Proven Best Practice
Assessment	No significant gaps	<p>P5: EIA and ongoing assessment process does not take broad considerations, risks and opportunities into account.</p> <p>P10: Broad considerations not taken into account, No assessment to increase the development contribution.</p> <p>P11: Assessment process does not take broad considerations into account.</p> <p>P19: No assessment of invasive species and water-level impacts on Viðey Island.</p>
Management	<p>P1: The absence of communications and consultation plans and processes developed for all project stages that set out communications and consultation needs and approaches for all stakeholder groups.</p>	<p>P10: No process to anticipate and respond to emerging risks and opportunities regarding project benefits.</p> <p>P13: No assessment of broader considerations and risks. No processes in place to anticipate and respond to emerging risks and opportunities.</p> <p>P19: No reassessment of risks and opportunities since the EIA</p>
Stakeholder Engagement	No significant gaps	<p>P4: Engagement of local residents specifically in siting and design.</p> <p>P10: Inclusion of stakeholder groups in the assessment and planning of project benefits.</p> <p>P23: No broad considerations in the downstream flow determination.</p>
Stakeholder Support	No significant gaps	No significant gaps
Conformance/ Compliance	No significant gaps	No significant gaps
Outcomes	No significant gaps	<p>P8: There are no plans for addressing infrastructure safety beyond those of the project itself.</p> <p>P23: Slow or no feedback on opinions / communication to/from stakeholders regarding the process leading to stakeholder dissatisfaction.</p>



Quality control

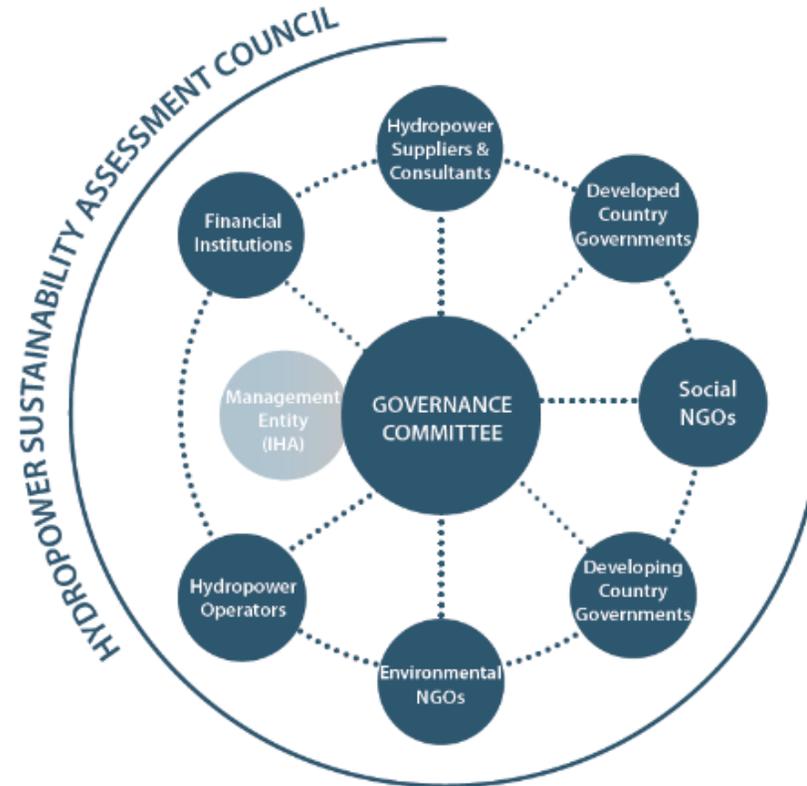
Multi-stakeholder Governance

Hydropower Sustainability Assessment Council established to ensure multi-stakeholder input and confidence in the Protocol content and application

Accredited Assessors

Official assessments can only be undertaken by accredited assessors

Assessors are trained to deliver quality and consistency



Assessments to-date

Oct-10	Shardara	Shardara HPP JSC	Kazakhstan	100 MW	Operation
Oct-11	Trevallyn	Hydro Tasmania	Australia	97 MW	Operation
Sep-12	Murum	Sarawak Energy	Malaysia	944 MW	Implementation
Mar-12	Walchensee	EON	Germany	124 MW	Operation
May-12	Hvammur	Landsvirkjun	Iceland	84 MW	Preparation
Aug-12	Jostedal	Statkraft	Norway	290 MW	Operation
Sep-12	Jirau	ESBR (GDF Suez)	Brasil	3750 MW	Implementation
Dec-12	Keeyask	Manitoba Hydro	Canada	695 MW	Preparation
Jun-13	Gavet	EDF	France	92 MW	Implementation
Sep-13	Blanda	Landsvirkjun	Iceland	150 MW	Operation
Oct-13	Sogamoso	Isagen	Colombia	820 MW	Implementation
Jan-14	Trung Son	EVN/TSHPCo	Vietnam	260 MW	Implementation
Apr-14	Santo Antonio	SAE	Brazil	3150 MW	Implementation
Jun-14	Miel	Isagen	Colombia	260 MW	Operation
Mar-14	Canafisto	Isagen	Columbia	936 MW	Preparation
Jun-14	Sava River Program	Program Sava Ltd	Croatia	160 MW	Early Stage
Sep-14	Kabeli A	Kabeli Hydro	Nepal	38 MW	Preparation
Nov-14	Semla	EON	Sweden	3 MW	Preparation
Mar-15	Multiple Projects	Government Ghana	Ghana		Early Stage
Apr-15	Nam Lik	CTG	Laos	100MW	Operation
Jun-15	Chaglla	Odebrecht	Peru	456 MW	Implementation
Aug-15	Itaipu	Itaipu Binacional	Brazil / Paraguay	14,000 MW	Operation
Feb-16	Mangdechhu	Mangdechhu Hydroelectric Project Authority	Bhutan	720 MW	Preparation
Sep-16	Kaunertal Expansion	TIWAG	Austria	1015 MW	Preparation
Nov-16	Devoll	Statkraft Albania	Albania	235 MW	Implementation



Global uptake

- The global sustainability tool for hydropower, with enormous long term potential
- Governance Council with ~100 participants worldwide, through seven stakeholder chambers
- Governance Committee (chaired by WBG) working to establish further drivers for uptake

Assessments to date

- 24,000 MW of hydropower assessed
- 26 formal assessments (voluntary publication)

Training to date

- >50 training events
- >1000 attendees



Use by development agencies and banks

World Bank

- Protocol assessments in Vietnam and Bhutan
- Basin assessment work in the Zambezi



NORAD (Norwegian development agency)

- Assessments and capacity building in Myanmar and Nepal



SECO (Swiss Economic Cooperation Office)

- Assessments and capacity building in Ghana and Indonesia



European Commission

- Assessments and capacity-building in EU



Climate Bonds Institute

- Environmental and social performance criteria



- Protocol documents and official assessment reports
- Charter, and Terms and Conditions
- FAQs and news



World Bank:
"Assessments deliver value for money and findings are conducive to management action"



Discussion

2017, Asian Development Bank, Manila, Philippines