

Hydropower Services and Climate Change workshop: Adaptation, Resilience and Valuation of Climate Change Services





Introduction by Jorge Damazio and Atle Harby



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- Annex XII: Services that hydropower can provide on adaptation and resilience (A&R)
 to climatic change. This activity will cover available and new knowledge on
 methodologies for assessing the level of A&R provided by hydropower projects.
- Annex IX is proposing a similar activity with the purpose to understand the value of the services that hydropower can provide in minimizing and mitigating the risks of floods and droughts in a changing climate.

Members of Annexes IX and XII, as well as international experts in the workshop topics are invited. The outcome of the workshop will be a <u>communique</u> and <u>brief summary</u> of the status on valuing hydropower services and providing climate change adaptation and resilience, and the <u>future work plan</u> of these Annexes.



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- Understanding how hydropower plant characteristics affect the level of adaptation and resiliency to climatic changes of its services from the viewpoint of business, security and socioenvironmental issue
- Investigating the role of hydropower for managing water resources in different countries in today's and future climate scenarios
- Assessing the value that hydropower provides in minimizing or mitigating risks associated with a changing climate
- Investigating how hydropower design and operation can best be adapted to minimize or manage climate change challenges?





Agenda

Time	Tuesday 3 rd December	Presented by
13:00	Registration and lunch	·
14:00	Opening and brief Introduction	Jorge Damazio, CEPEL Atle Harby, SINTEF
14:15	Multiple Use of the Water in the Operation of Brazilian Hydropower Reservoir system	Antonio Borges de Lima, National Water Agency of Brazil (ANA)
14:45	Flood and drought control services in Brazilian hydropower	Paulo Diniz, Brazilian Operator of the National Electricity System
15:15	Discussion	
15:30	Coffee Break	
16:00	Water management and hydropower operations in the US	Nathalie Voisin, PNNL
16:30	Adaptation and resiliency to climatic changes of hydropower flood and drought services	Jorge Damazio, CEPEL
16:45	Hydropower providing flood and drought control	Atle Harby, SINTEF
17:00	IEA Hydro member interventions	
17:30	Coffee Break	
17:45	Discussion and summary	
18:30	End of meeting day one	

Agenda

Time	Wednesday 4 th December	Presented by
09:00	External presentation by expert. Question & answers	Maria Ubierna, IHA (video)
09:30	External presentation by expert. Question & answers	Ånund Killingtveit, NTNU (video)
10:00	Discussion	Moderator: Jorge Damazio
10:30	Coffee Break	
11:00	Introduction and discussion: Analyzing flood and drought services provided by hydropower projects considering climate change	Moderator: Jorge Damazio
12:30	Lunch	
13.30	Hydropower and Water Resources in Brazil	Jerson Kelman, COPPE
14:00	Discussion: The role of hydropower for managing water resources in current and future climate	Moderator: Nathalie Voisin
15:00	Coffee Break	
15:30	Introduction and discussion: Assessing the value that hydropower provides in minimising or mitigating floods and droughts.	Moderator: Atle Harby
17:00	End of meeting day two	

Agenda

Time	Thursday 5 th December	Presented by
09:00	Summary of discussions from previous days	Moderated by operating agents
09:30	Activities for Annex IX and Annex XII – proposals & discussions	
10:30	Coffee Break	
11:00	Work plan, milestones and deliverables. Discussion and agreements. Structure of work. Collaboration with other organisations	Moderated by operating agents
12:30	Any other business	
13:00	Lunch and end of meeting	

Workshop



