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Programme for the International Workshop
Environmental Flows Assessment and Implementation for India
Exchanging Indian, European and International Experiences
21-22 October 2019, New Delhi, India / Venue: The Claridges Hotel (Dr. APJ Abdul
Kalam Rd., Aurangzeb Road, New Delhi 110011); Hall: Vice Regal

Day 1, 21 October 2019

09:00–10:00	Registration	
Session 1: Inaugural Session		
10:00-10:45	<i>Welcome Address by -</i> Shri Rajiv Ranjan Mishra <i>Director General, National Mission for Clean Ganga</i>	
	Mr. Dirk Steffes-enn <i>Deputy Head of Economic Cooperation and Development, German Embassy India</i>	
	Ms. Martina Burkard <i>Head of Programme, GIZ</i>	
	Mr. Edwin Koekkoek <i>Counsellor for Energy & Climate Action, EU Delegation to India</i>	
	<i>Inaugural Address by –</i> Shri Gajendra Singh Shekhawat <i>Hon'ble Minister</i> <i>Ministry of Jal Shakti, Government of India</i>	
Technical Sessions		
Session 2: Setting the Scene: Legal and Institutional Context of E-Flows		
Time	Programme Item	Speaker
10:45-10:50	Aims and purpose of the workshop	Ms. Birgit Vogel / IEWP/GIZ PMU
10:50-11:15	<i>Keynote presentation:</i> The global context of E-Flows, assessment tools, its importance in water resources planning and an outlook on the issue of transferability	Mr. Stefan Schmutz <i>University of Natural Resources and Life Sciences Vienna</i>
11:15-11:25	Q & A	Facilitator (Birgit Vogel)
11:25-11:40	Water resources management and challenges in India in the context of E-Flows: status quo and the way towards future implementation	Mr. A. K. Gosain <i>IIT Delhi</i>
11:40 -11:55	Governmental settings and the context of implementation in India	Mr. Bhopal Singh <i>Central Water Commission</i>
11:55- 12:05	Q & A	Facilitator (Birgit Vogel)
12:05-12:20	E-flows in the Ganga River Basin: Legal framework, challenges and implementation	Mr. D. P. Mathuria <i>National Mission for Clean Ganga</i>

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Time	Programme Item	Speaker
12:20-12:35	Implementation of environmental legislation: E-Flows under the EU Water Framework Directive	Ms. Rafaela Schinegger <i>University of Natural Resources and Life Sciences Vienna</i>
12:35-12:50	The role of multi-stakeholder partnerships in developing and testing E-flows approaches in India	Mr. Suresh Babu <i>WWF India</i>
12:50-13:00	Q & A	Facilitator (Birgit Vogel)
13:00-14:00	Lunch	
Session 3: Linking Hydrology with Ecology and Socio-economics for Integrated E-Flows Assessment		
14:00-14:15	Understanding natural flow patterns and hydrological alteration as an essential basis for E-Flows assessment	Mr. Daniel S. Hayes <i>University of Natural Resources and Life Sciences Vienna</i>
14:15-14:30	The effects of flow alteration on ecology, geomorphology and water quality	Mr. Michael E. McClain <i>IHE Delft Institute for Water Education</i>
14:30 -14:45	Flow alteration and specific environmental impacts in India with focus on the Ganga river basin	Mr. Himanshu Thakkar <i>South Asia Network on Dams, Rivers and People</i>
14:45-14:55	Q & A	Facilitator (Rafaela Schinegger)
14:55-15:10	River Ecology with special focus on flow - species ecology relationships for Himalayan and Central Indian rivers	Mr. Jeyaraj Antony Johnson <i>Wildlife Institute India</i>
15:10-15:25	Species ecology of Indian river deltas and their role in establishing E-Flows	Mr. Amiya Sahoo <i>Central Inland Fisheries Research Institute</i>
15:25-15:40	Environmental flows in the context of food security and irrigated agriculture	Ms. Rebecca E. Tharme <i>Riverfutures</i>
15:40-15:50	Q & A	Facilitator (Rafaela Schinegger)
15:50-16:20	Coffee break	
Session 4: Moderated Panel Discussion		
16:20-16:30	Impulse presentation	Prof. Cate Brown <i>University of the Western Cape</i>
16:30-17:30	E-flows in water resources management – status quo, benefits and challenges globally and in India	Moderation: Birgit Vogel (IEWP/GIZ PMU) / Rafaela Schinegger (BOKU) Panel members: D. P. Mathuria, Bhopal Singh, Suresh Babu, Jeyaraj Antony Johnson, Cate Brown, Rebecca E. Tharme, Stefan Schmutz

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17:30-17:40	Quick overview of day 2 and Closing of day 1	Facilitator (Rafaela Schinegger)
19:00 Networking Dinner, Venue: The Claridges Hotel, Pool area		

Day 2, 22 Oct. 2019

Time	Agenda Item	Speaker
10:00-10:05	Opening remarks for day 2	Facilitator (Rafaela Schinegger)
10:05-10:15	Reflections on day 1	Mr. Michael E. McClain & Ms. Jyoti Nale
10:15-10:30	Address by Sh U.P. Singh , Secretary, Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti	
Session 5: E-Flow Assessment: Tools to Determine How Much Water a River Needs		
10:30-10:45	Evolution and overview of E-Flows assessment principles and methodologies	Prof. Cate Brown <i>University of the Western Cape</i>
10:45-11:05	Physical habitat modelling and eco-hydrological tools	Mr. Piotr Parasiewicz <i>S. Sakowicz Inland Fisheries Institute</i>
11:05-11:20	Joint development of a methodology to assess E-Flows in India under the India-EU Water Partnership: Pilot testing results in Ramganga Sub-Basin	Ms. Jyoti Nale <i>IEWP/GIZ PMU</i>
11:20-11:30	Q & A	Facilitator (Rafaela Schinegger)
11:30 -11:45	Short coffee break	
11:45-12:00	Experiences of assessments in Indian River Basins – Himalayan and Sub-Himalayan case studies	Mr. N. N. Rai <i>Central Water Commission India</i>
12:00-12:15	Assessment of E-Flows in Bhutan: E-Flows Guideline and its implementation	Ms. Karma Yangzom Dorji <i>Chhimi D Consulting</i>
12:15-12:30	Socio-cultural parameters in the Indian E-Flows context	Mr. Manu Bhatnagar <i>Indian National Trust for Art and Cultural Heritage</i>
12:30-12:40	Q & A	Facilitator (Rafaela Schinegger)
12:40 -12:50	Outline of the interactive afternoon session	Facilitator (Rafaela Schinegger)
12:50-13:50	Lunch	

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Session 6: Breakout sessions: Blending European, International and Indian Expertise for E-Flows Assessment in India

13:50-15:10	Group sessions and coffee break Topics/questions:	Moderated by international & national experts
	1. What are key targets for E-Flows assessment in India?	International expert: Stefan Schmutz, National experts: Bhopal Singh, A. K. Gosain
	2. Challenges regarding E-Flows assessment data for hydrological, ecological & socio-economic aspects? What are priorities for short & long-term implementation?	International experts: Michael E. McClain, Karma Yangzom Dorji National expert: N. N. Rai
	3. How can E-Flows practically be incorporated into integrated water management in India? How can existing institutional setups serve to advance E-Flows implementation?	International experts: Daniel S. Hayes, Birgit Vogel National experts: D. P. Mathuria, Jyoti Nale
	4. How can success be defined? What approaches are necessary to guide evaluation and investment?	International experts: Piotr Parasiewicz, Rebecca E. Tharme National experts: Rishi Srivastava, Vikrant Tyagi
15:10-15:50	Reporting back from the tables	Facilitator (Rafaela Schinegger)
15:50-16:20	Coffee break	
Session 7: Remaining Challenges and Way Forward		
16:20-16:30	Summary of lessons learned and key messages	Mr. Stefan Schmutz <i>University of Natural Resources and Life Sciences Vienna</i> (supported by IEWP/GIZ PMU)
16:30-17:30	Moderated Panel Discussion: Advancing E-Flows science and implementation in India	Moderation: Birgit Vogel (IEWP/GIZ PMU) / Rafaela Schinegger (BOKU). Panel members: 1. Rajiv Ranjan Mishra - NMCG 2. D. P. Mathuria – NMCG 3. Manu Bhatnagar - INTACH 4. Henriette Faergemann – EU Delegation 5. Martina Burkard - GIZ 6. Michael E. McClain – EU Expert 7. Piotr Parasiewicz – EU Expert
17:30-17:40	Closing remarks	Mr. Rajiv Ranjan Mishra <i>National Mission for Clean Ganga</i> Ms Henriette Faergemann, <i>First Counsellor, EU Delegation</i>
17:40-17:45	Closure of the workshop	Ms. Martina Burkard, GIZ

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