

First Draft: Program for the first part of the binary expert seminar “Climate-induced challenges in water management – from floods to low water (droughts)”; 29. September to 05. October 2019, in Porto Alegre, Brazil.

Day	Subject	Speaker
So.	Arrival the participants	
Mon.	<b>Effects of hydro-meteorological extreme on catchment areas</b>	
<u>9:00 – 9:20</u>	Opening of the Seminar and Goal of the Seminar	Prof. P. Reggiani, PhD, University of Siegen; Prof. Dr. Michel Gean Paulo, Federal University of Rio Grande do Sul (UFRGS)
<u>9:20 – 10:00</u> 30 Mins/10 Mins Talk/Discuss.	Floods and flash floods: Precipitation events and runoff processes	Prof. P. Reggiani, PhD, University of Siegen
<u>10:00 – 10:40</u> 30 Mins/10 Mins Talk/Discuss.	Processes and influencing factors in the development of low water (dry periods/ drought)	Latin American expert (Participant)
<u>10:40 – 11:20</u> 30 Mins/10 Mins Talk/Discuss	Causes/Processes of shallow and deep landslides as well as water related soil erosion	Local expert (Porto Alegre)
<u>11:20 – 12:00</u> 30 Mins/10 Mins Talk/Discuss.	Topic of the expert's choice	Latin American expert (Participant)
12:00 – 12:30	Short introduction of the participants and / or time buffer	Participants
12:30 – 14:00	Lunch	All
<u>14:00 – 14:45</u> 35 Mins/10 Mins Talk/Discuss.	Generation of artificial (synthetic) precipitation time series versus regional climate models, KOSTRA_DWD 2010 (extreme value statistically determined precipitation depth)	Prof. P. Reggiani, PhD, University of Siegen
<u>14:45 – 15:30</u> 35 Mins/10 Mins Talk/Discuss.	Application of radar data in water management practice (assessment of the situation and post-processing)	Dipl.-Ing. Ingrid Althoff, University of Siegen
15:30 – 15:50	Coffee break and time for discussion (20 minutes)	All
<u>15:50 – 16:35</u> 35 Mins/10 Mins Talk/Discuss.	Topic of the expert's choice	Local expert (Porto Alegre)
<u>16:35 – 17:30</u> About. 60 Mins Discuss./GW	<u>General Discussion:</u> Topics of the Day <u>Group work:</u> Working out of a strategy paper. Initial Questions are: <ul style="list-style-type: none"> <li>- What are the problems?</li> <li>- How can risks be identified?</li> <li>- Which areas are at risk (settlements, agriculture and forestry, etc.)</li> <li>- Which solution approaches (measures)?</li> <li>- Which strategies of action exist and which examples of best practice are worthy of imitation?</li> <li>- Etc.</li> </ul>	All  Participants make three groups

Tue.	Identify risks	
9:00 – 9:45 35 Mins/10 Mins Talk/Discuss.	Implementation of a simplified hazard assessment and a topographical analysis to drawing up a hazard map	Dipl.-Ing. Ingrid Althoff, University of Siegen
9:45 – 10:30 35 Mins/10 Mins Talk/Discuss.	Hydraulic hazard analysis (Inundation-Simulation: Calculation/model approaches to the inundation assessment in urban area) and drawing up of a heavy rain hazard map	Prof. P. Reggiani, PhD, University of Siegen
10:30 – 11:15 35 Mins/10 Mins Talk/Discuss.	Determining of the inundation risk in Latin America	Latin American Expert (Participant)
11:15 – 12:00 35 Mins/10 Mins Talk/Discuss.	Development of flood hazard and risk maps, required 1-2D models, flood risk management plan	MSc Nina Kleffmann, University of Siegen
12:00 – 12:30	General discussion / time buffer	All
12:30 – 14:00	Lunch	
14:00 – 14:45 35 Mins/10 Mins Talk/Discuss.	Topic of the expert's choice	Local expert (Porto Alegre)
14:45 – 15:30 35 Mins/10 Mins Talk/Discuss.	Floods caused by groundwater and the risks	Dipl.-Ing. Ingrid Althoff, University of Siegen
15:30 – 15:50	Coffee break and time for discussion (20 minutes)	All
15:50 – 16:35 35 Mins/10 Mins Talk/Discuss.	Drawing up a hazard and risk map in the field of landslides and soil erosion	Latin American expert (Participant)
16:35 – 17:30 About. 60 Min. DiscUss./GW	<b>General Discussion:</b> Topics of the Day <b>Group work:</b> Working out of a strategy paper. Initial Questions are: <ul style="list-style-type: none"> <li>- What are the problems?</li> <li>- How can risks be identified?</li> <li>- Which areas are at risk (settlements, agriculture and forestry, etc.)</li> <li>- Which solution approaches (measures)?</li> <li>- Which strategies of action exist and which examples of best practice are worthy of imitation?</li> <li>- Etc.</li> </ul>	All  Groups (Participants)
Wed.	Excursion	
7:30	Start from the hotel Visiting of endangered areas and measures for active defense	Prof. Dr. Michel Gean Paulo Federal University of Rio Grande do Sul (UFRGS) and his Team
About. 17:30	back In hotel	

Thu.	Identify risks	
<u>9:00 – 9:45</u> 35 Mins/10 Mins Talk/Discuss.	Low water a complex work structure and the thereout resulting utilization demands and risks	Latin American expert (Participant)
<u>9:45 -10:30</u> 35 Mins/10 Mins Talk/Discuss.	Effects of low water on earthworks protection objects (e.g. earth dyke)	Local expert (Porto Alegre)
<u>10:30 – 11:15</u> 35 Mins/10 Mins Talk/ Discuss.	The influence of low water on waters ecology and waters quality	Latin American expert (Participant)
<u>11:15 – 12:00</u> 35 Mins/10 Mins Talk/Discuss.	Pollutant load of waters due to inundation at flowing waters and in urban areas as well as model application	MSc Nina Kleffmann, University of Siegen
<u>12:00 – 12:30</u>	General discussion / time buffer	All
<u>12:30 – 14:00</u>	Lunch	
Thu.	Spatial planning under consideration of floods and low water (drought)	
<u>14:00 – 14:45</u> 35Mins/10 Mins Talk/Discuss.	Topic of the expert's choice	Local expert (Porto Alegre)
<u>14:45 – 15:30</u> 35 Mins/10 Mins Talk/Discuss.	Topic of the expert's choice	Latin American expert (Participant)
<u>15:30 – 15:50</u>	Coffee break and time for discussion (20 minutes)	All
<u>15:50 – 17:30</u> About. 110 Mins Discuss./GW	<p>General Discussion: Topics of the Day</p> <p><b>Group work:</b> Working out of a strategy paper.</p> <p>Initial Questions are:</p> <ul style="list-style-type: none"> <li>- What are the problems?</li> <li>- How can risks be identified?</li> <li>- Which areas are at risk (settlements, agriculture and forestry, etc.)</li> <li>- Which solution approaches (measures)?</li> <li>- Which strategies of action exist and which examples of best practice are worthy of imitation?</li> <li>- Etc.</li> <li>- Integration of excursion results</li> </ul>	All  Groups (Participants)
Fri.	Approaches to damage analysis and damage assessment/Completion of the group work/General discussion	
<u>9:00 – 9:45</u> 35 Mins/10 Mins Talk/ Discuss.	Topic of the expert's choice	Latin American expert (Participant)
<u>9:45 – 10:30</u> 35 Mins/10 Mins Talk/Discuss.	Determination of the damage potential (monetary and non-monetary damages), assessment of the damage (vulnerability)	MSc Nina Kleffmann, University of Siegen
<u>10:30 – 11:15</u> 35 Mins/10 Mins Talk/Discuss.	Topic of the expert's choice	Local expert (Porto Alegre)
<u>11:15 – 12:00</u> 35 Mins/10 Mins Talk/Discuss.	Methods for detecting direct and indirect damages	Latin American expert (Participant)

