

COST LAND4FLOOD PhD-Workshop Documentation



Photo: FWW, 2019

Workshop Documentation

The three-day LAND4FLOOD PhD-Workshop on **“Innovative and successfully implemented strategies for achieving resilience in Flood Risk Management with a special focus on private and public property flood resilience”** from Monday 9th September to Wednesday, 11th September 2019 was conducted by the Department of Hydraulic Engineering and Water Management, under the management of Prof Dr Robert Jüpner at Technische Universität Kaiserslautern, Germany. The workshop was consisted of workshop sessions and excursion, where the participants were engaged in stakeholder activities and dialogues, in addition to the visit of flood affected sites and measures taken against heavy flooding within the city of Kaiserslautern.

The participation in the workshop was quite diverse consisting upon 15 participants from eight different countries. All the invited participants were currently at different stages of their doctorate and masters, with interesting interdisciplinary research activities.

Motivation and aim of the workshop

The purpose of this workshop was to explore innovative ideas to achieve resilience in flood risk management by focusing private and public property flood resilience. Participants have presented their ideas and approaches in workshop sessions. During the excursion and through the keynotes from Prof Dr Robert Jüpner (Hydraulic Engineering and Water Management) and Prof Dr-Ing Karina Pallagst (International Planning Systems), the participants were provided with engineering and planning perspectives to reach resilience in flood risk management. Moreover, excursion to city administration of Kaiserslautern has provided a comprehensive strategy to cope with climate change and its consequences in a larger scale.

Dialogue between participants, organizers and other stakeholder was also aimed, which successfully fulfilled during the three days activates in the form of workshop sessions and excursion. Where participants not only shared their experiences but they also received valuable comments for their queries from professors as well as from the experts working in flood risk management areas.

1st Day of the workshop

Prof Dr Robert Jüpner formally started the workshop by welcoming the participants followed by a brief presentation from the organizers about Technische Universität Kaiserslautern, along with description of the activities in which the Department of Hydraulic Engineering and Water Management is currently involved related to flood risk management, including details about current PhD students working in the department and their research activities. He acknowledged the support of the LAND4FLOOD-Initiative and the European Union via COST to make this event happen.

The first day of the workshop was dedicated to the participant presentation and discussion sessions, where the participants have presented their current research related to resilience and flood risk management. Participants have shared their ideas to achieve resilience in flood risk management and demonstrated different approaches and strategies in term of planning and management, related to governance and community involvement, by considering different case studies in developing and under developing countries. Few participants which were at early stage of the PhD has presented their way forward and received valuable suggestions from professors and participants in order to draft methodology.

Different question and answer sessions between participant's presentation and coffee break have provided a friendly environment to the participants in order to get their questions fully answered.



Figure 1: Lively exchange and discussions amongst the participants in the foyer during coffee break (Photo: FWW, 2019)

2nd Day of the workshop

The 2nd day of the workshop was dedicated to excursion activities, where the participants had the opportunity to experience approaches taken by different stakeholders and their inter-relationship in order to attain resilience flood risk management in the city of Kaiserslautern. The excursion formally started from the visit of the municipal administration of Kaiserslautern, where the official representative, Ms Hannah-Sophie Stabel, has given a presentation about the climate change adaptation strategy of Kaiserslautern. There, Ms Stabel pointed out flood prevention strategies and physical measures, the city of Kaiserslautern is adopting to cope with climate uncertainties on a larger scale. The presentation was followed by question and answer session, where participants asked about different measures to cope flooding incident in detail.

As a next step participants were taken to the Fire Brigade Headquarter in Kaiserslautern. Where the Deputy Chief of the fire Brigade, Mr Mike Kopp, has given a presentation regarding response of the fire brigade during a heavy rainfall event as well as their strategies, alertness and preparations to manage such an event as soon as it happened. Mr Kopp has also shared experiences and lesson learned from last year heavy flooding (100-year flood) caused by intensive rainfall in Kaiserslautern. This was followed by a guided tour of different departments and facilities within fire brigade to gain a comprehensive understanding to the participants.

As a last step, participants were taken to the Water & Wastewater Authority of Kaiserslautern. Where Prof Dr Robert Jüpner has given a presentation regarding flooding event of June 2018 and



Figure 2: Mr Jung is explaining the different parts of the wastewater treatment plant to the participants during the tour of the works premises (Photo: FWW, 2019)

its consequences on the waste water treatment plant (In the event of heavy rainfall in June 2018 waste water treatment plant experienced severe flooding). Followed by measures and strategies taken into account to counter this kind of event in future. After that, Mr Thomas Jung, chief of operation of the wastewater treatment plant, has provided detailed tour of the facility along with explanation of heavy

rainfall event of last year by demonstrating the affected areas and inundation depth of water in different areas within the facilities. Throughout the day of the excursion participants asked questions which were answered by different stake holder according to their relevant expertise.

3rd Day of the workshop

The last day of the workshop was dedicated to the participant's presentation followed by presentations from professors to planning and engineering perspective in resilience flood risk management. Prof Dr-Ing Pallagst from the Department International Planning Systems at Technische Universität Kaiserslautern, has given a presentation about transnational planning perspective in flood risk management and shared her experiences from different case studies related to flood risk management. In the second part of the session, Prof Dr Jüpner has given a



Figure 3: Prof Jüpner explaining flood risk management in engineering perspective (Photo: FWV, 2019)

presentation about resilience flood risk management in engineering perspective. He provided an insight to achieve resilience in flood risk management by sharing his experiences, especially examples from worldwide case studies regarding resilience of technical infrastructure in heavy flooding along with his experiences of River Elbe flooding in 2013.

The participants shared their experiences in a final discussion session. “It was really helpful to widen our perception” was a statement, which was widely shared by most of the participants. The organizing team of Technische Universität Kaiserslautern (Prof Robert Jüpner, Christin Rinnert, Ahsan Ali, and Malte Zeddies) expressed their gratefulness to the LAND4FLOOD-Initiative for their encouragement and support. Especially Prof Dr Lenka Slavikova and Prof Dr Thomas Hartmann have been extremely supportive to make this event a success.

Robert Jüpner, Christin Rinnert, Ahsan Ali, Malte Zeddies (TUK)

Kaiserslautern, 19 September 2019