



Evaluating floods in the Kabul River basin of Pakistan with the Soil and Water Assessment Tool (SWAT) model

Muhammad Shahid Iqbal and Nynke Hofstra

Environmental Systems Analysis group, Wageningen University, The Netherlands.

Objective

Our aim is to better understand the impact of flooding on public health in the Kabul River basin. We plan to use SWAT to model the concentration of *E. coli* in the surface water to enable fate and transport studies and scenario analysis.

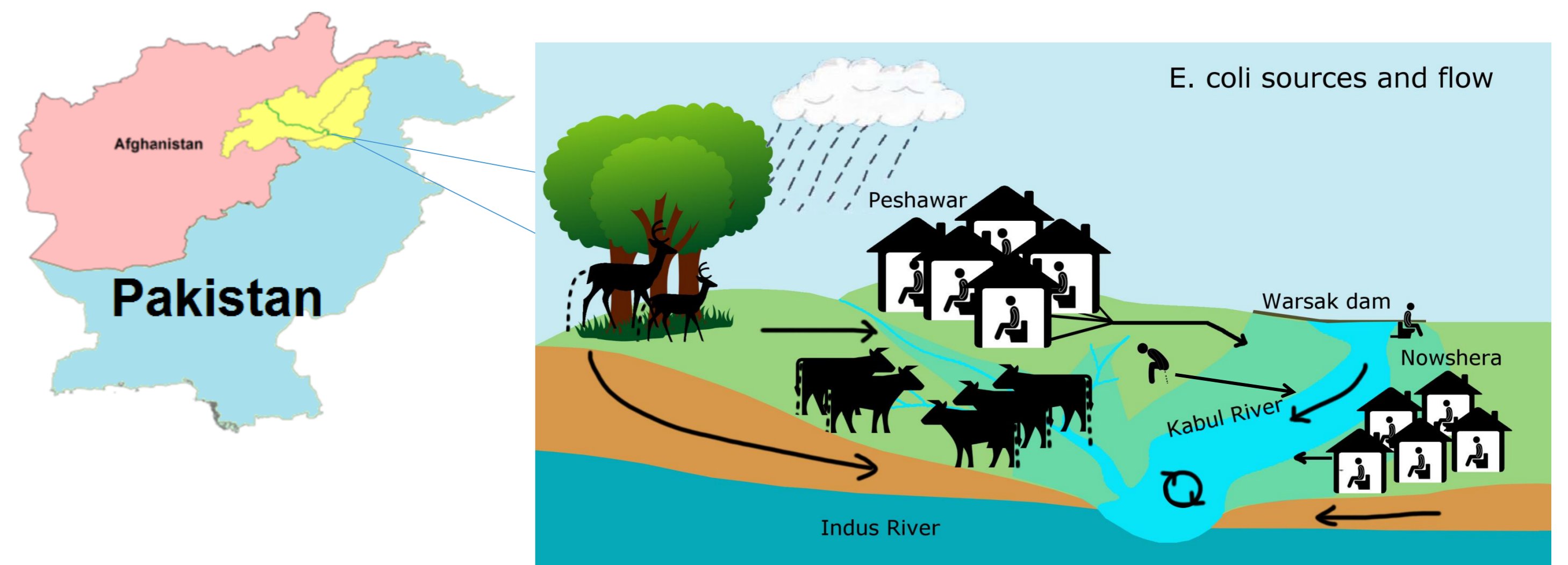
Background

- ✓ 3.4 million people died out of 1.5 billion people worldwide who suffer from waterborne diseases (UNICEF/WHO 2009). Also in the Kabul River basin in Pakistan a large percentage of deaths is due to waterborne diseases.
- ✓ *E. coli* is relatively easy and cheap to measure indicator bacterium for waterborne pathogens.
- ✓ Kabul river floods every year and this makes the basin an ideal test case to study flooding impacts on *E. coli* concentration in surface water.

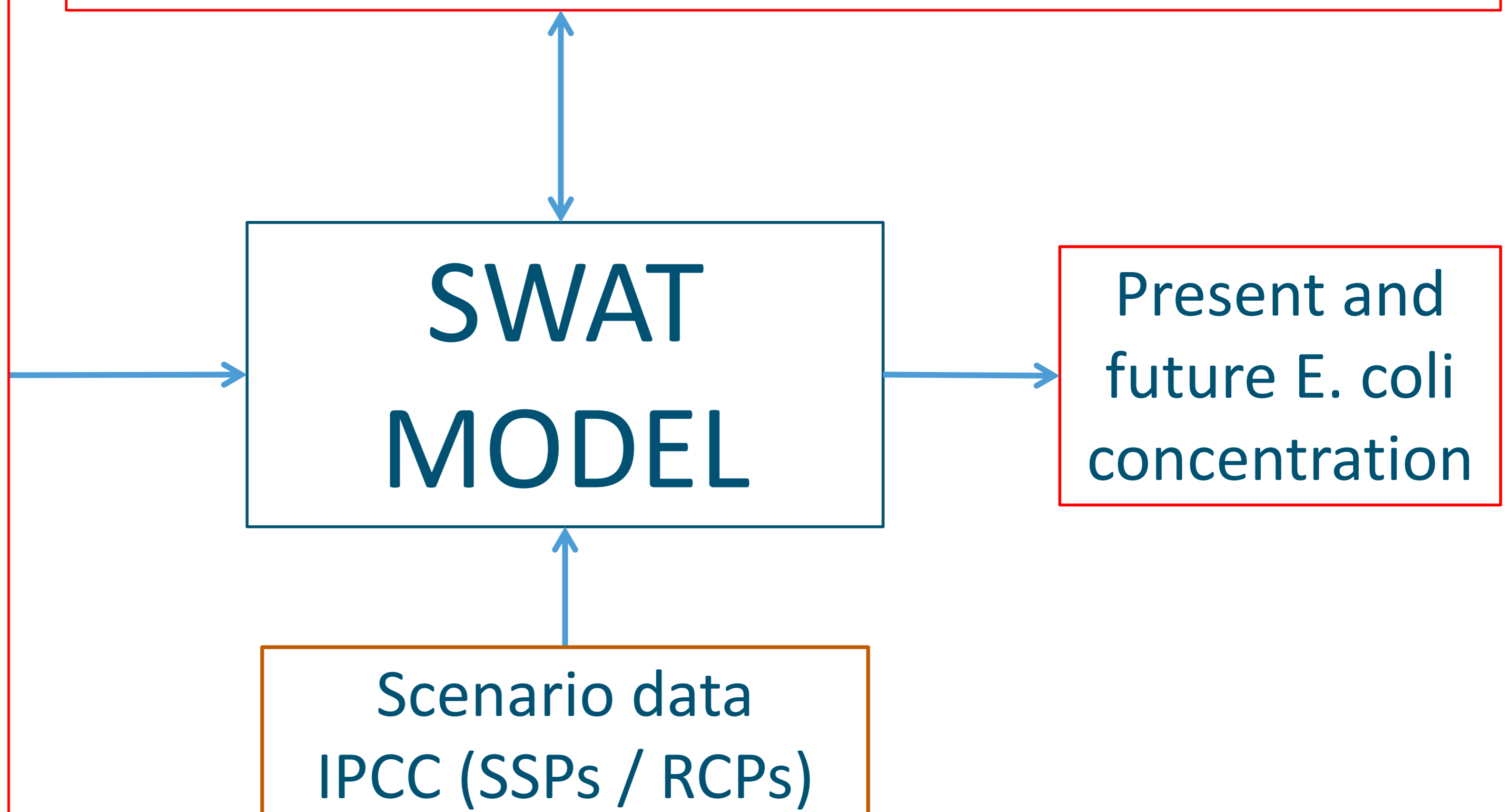
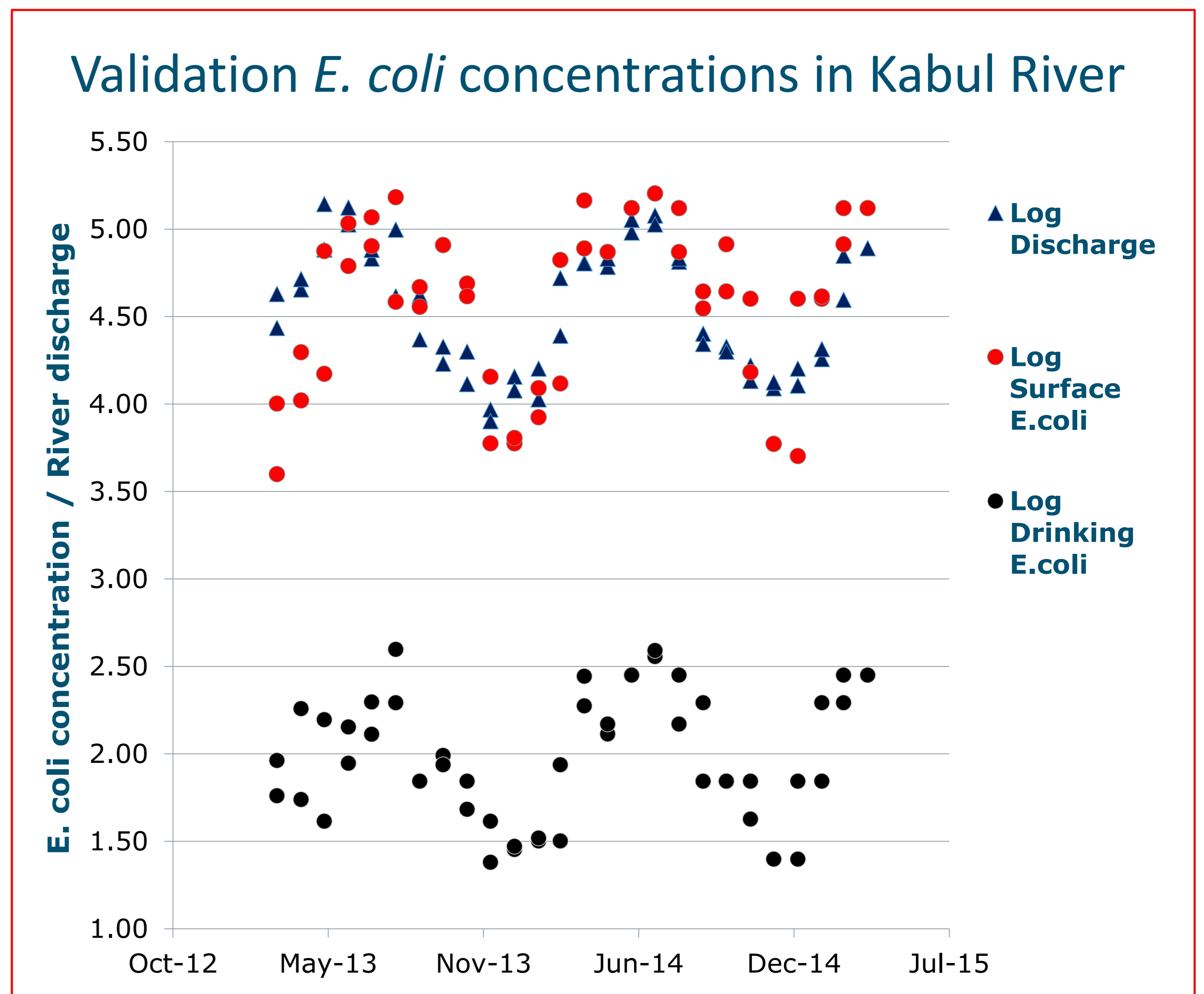
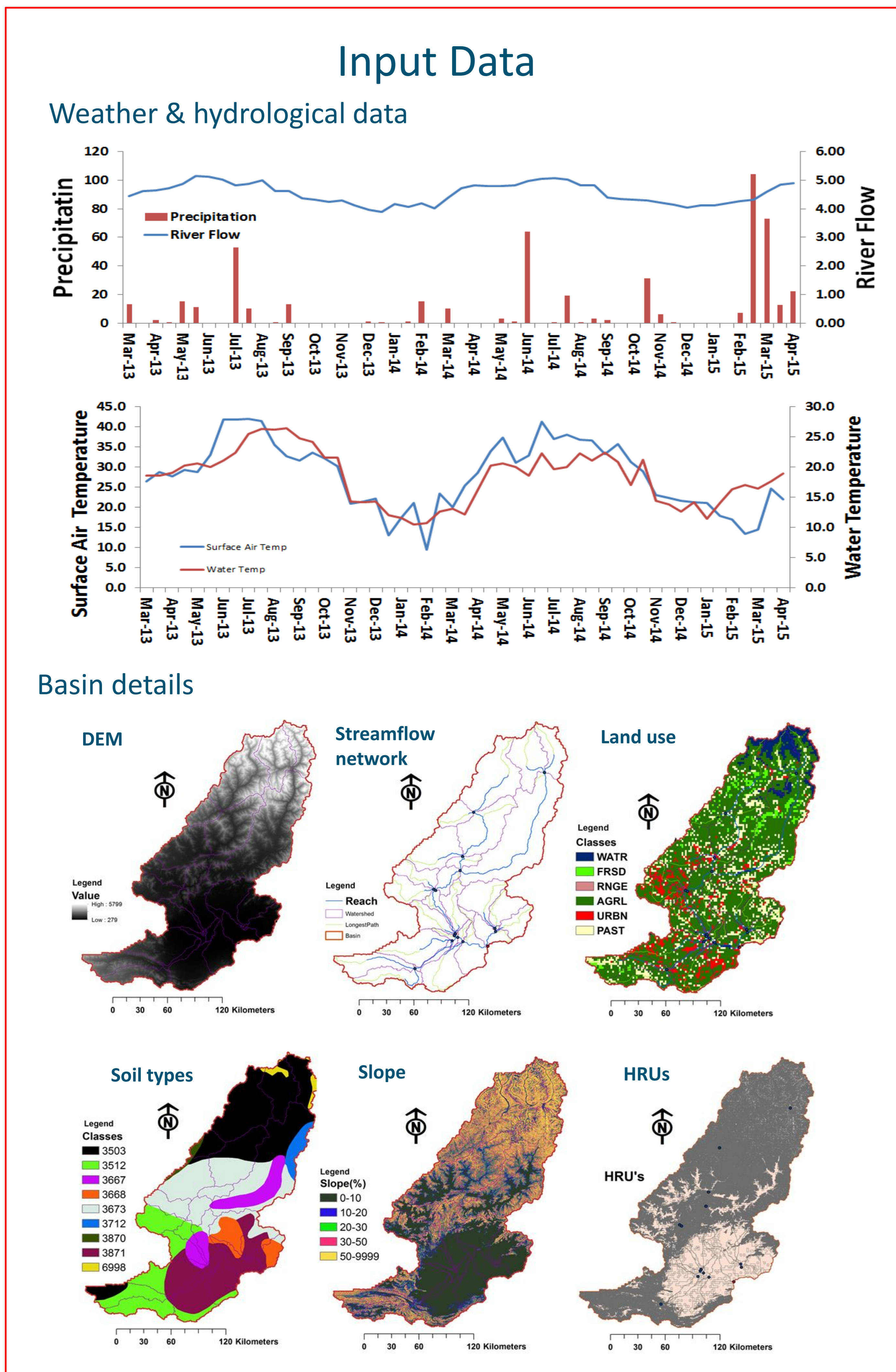
Outlook

This modelling study will provide quantitative proof of increased *E. coli* concentrations in surface water with flooding and enable assessment of major sources of water pollution.

Study area, *E. coli* sources and flow



Methodology



Acknowledgements

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