

# Sustainable and resilient social system for healthy nature

**R&D Project Title :** Advanced practice of watershed flood management using surface hydrological prediction system

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## Summary :

Flood disaster is expected to increase under the climate change, and its mitigation is an extremely important and urgent issue worldwide. In this study, we will combine Today's Earth, a simulator for predicting surface hydrology, and satellite observation technology with artificial intelligence and social science to significantly improve the accuracy of surface hydrology prediction at various spatial and temporal scales, and build a new sustainable watershed flood management system using the predicted information. This flood management system will contribute to the recently launched watershed flood management, including the development of social infrastructure and its effective operation to reduce inundation, more appropriate and effective evacuation activities and disaster prevention, improvement of "how to live" to reduce damage in advance, and more efficient restoration after damage has occurred. By developing such technologies and implementing them in society, we will build a sustainable society where floods do not become disasters.



Yoshimura Lab. HP: <https://isotope.iis.u-tokyo.ac.jp/>