

Chugoku Regional Division Research of Natural Disaster Research Council  
No. 12  
Contents

Assessment of Inundation Risk in the Fushino River Basin under Future Climate Scenarios	1
<i>Shoki MATSUZAWA, Nozomu ONAKA, Daichi FUKUMARU, Yoshihisa AKAMATSU</i>	
Characteristics of Flood Damage Caused by Heavy Rainfall in Kumamoto Prefecture in August 2025	
1. Case Study of the Iseri River Basin in Kumamoto City	5
<i>Haruhiko YAMAMOTO</i>	
Characteristics of Flood Damage Caused by Heavy Rainfall in Kumamoto Prefecture in August 2025	
2. Case Studies of Kamiamakusa City and Amakusa City	9
<i>Haruhiko YAMAMOTO</i>	
Classification Prediction of Future Heavy Rainfall Meteorological Fields in the Kyushu Region Using d4PDF	
	13
<i>Yuma HIRONAKA, Koji ASAI, Koji NISHIYAMA</i>	
Numerical Analysis of the Impact of Synoptic-Scale Dynamical Changes Associated with Global Warming on Heavy Rainfall along Stationary Fronts	
	17
<i>Hayato TOMITA, Kenji TANAKA</i>	
Study on Precipitable Water Estimation using Himawari Satellite Data	
	21
<i>Shun OKUMURA, Hajime SHIROZU, Shuma TAKEDA, Koji ASAI</i>	
Development of a Machine Learning-Based Precipitation Prediction Model Using Raman Lider Observation Data	
	25
<i>Shuma TAKEDA, Hajime SHIROZU, Shun OKUMURA, Koji ASAI</i>	
Assessment of a CNN–RNN Hybrid Model for Basin-Averaged Rainfall Classification Using Integrated Satellite and Lidar Observations	
	29
<i>Tomoya HARADA, Hajime SHIROZU</i>	
Experimental Study on Lateral Outflow Angles of Outer Side and Inner Side Breaches in Curved Channels	
	33
<i>Itsuki OURA, Rin KIHARA, Koji ASAI</i>	
Geological Characteristics and Age of Debris Flow Deposits in Saijo-cho, Higashihiroshima City	
	37
<i>Hiroaki MATSUGI, Motoyuki SUZUKI, Yuta JIKUYA, Hina KOBAYASHI</i>	

Comparison of Soil and Sediment Ages in Landslide Areas: A Case Study in Iwakuni City	41
<i>Shimpei MIYAMOTO, Takehiro OHTA, Tomohiro TSUJI, Takumi TAKETA, Takahito KUROKI, Hiroyuki MORIKAWA</i>	
Advanced Debris Flow Simulation and Visualization Using High-Resolution Topographic Data	45
<i>Natsuki TAHARA, Nozomu ONAKA, Yoshihisa AKAMATSU</i>	
Detection Method for Underground Pipeline Damage Utilizing a Direct-Installation Groundwater Current Meter	49
<i>Atsuki KONO, Koichi YAMAMOTO</i>	
Evacuation Route Search Application Based on the Risk of Road Obstructions Caused by Earthquake-Induced Water Infrastructure Damage	53
<i>Koichi YAMAMOTO, Yuko YAMAMOTO, Kyoko KAGOHARA, Hirotoshi MORI, Norimasa YOSHIMOTO, Motoyuki SUZUKI</i>	
Questionnaire Survey on the Usage and Reorganization of Land Flood Gate in the Estuary Area of Majime River	57
<i>Keito UCHINUNO, Koji ASAII, Takahiro UEHARA, Yuuji YOSHINAGA</i>	
Disaster Preparedness and Participation in Disaster Mutual Aid and Public Assistance Networks for Homebound Patients with Intractable Diseases	61
<i>Nonoka MIYAKE, Yuko USHIO, Hirona NAGAHAMA, Miho FUJIHARA, Yumeho MATSUMOTO, Yukie HONDA, Yoko NOMURA, Chiyo YANAI</i>	
Differences in the Perception of "Disaster Prevention Response" between Liberal Arts and Science Students, as Seen by Students Taking the Subject Unit Disaster Prevention and Urban Development	65
<i>Naoki MEYAMA, Hiroshi INOUE</i>	
Considering the Disaster Risks of Interim Storage of Spent Nuclear Fuel - Regarding the Plan of Kaminoseki Town, Yamaguchi Prefecture -	69
<i>Hitomi MURAKAMI</i>	