

Supplementary material A.

Articles included in the systematic literature review

	Article Title	Author(s)	Year	Journal
1	Economic aspects of flood damage propensity in agriculture - a study in the lower Umfolozi Flats	van Zyl, J and Groenewald, J A	1984	<i>Agrekon</i> , 23(1), 32–48. https://doi.org/10.1080/03031853.1984.9524023
2	Effects of 1985 food security act and 1990 food, agriculture, conservation, and trade act on the 1993 flooding on the upper Mississippi and Missouri River Basins	Miller, D G, Shirley, C E, Chenoweth, J W	1994	<i>Water International</i> , 19(4), 207–211. https://doi.org/10.1080/02508069408686232
	Global warming and changes in the probability of occurrence of floods in Bangladesh and implications	M. Monirul Qader Mirza	2002	<i>Global Environmental Change</i> , 12(2), 127–138. https://doi.org/10.1016/S0959-3780(02)00002-X
4	An application of a flood risk analysis system for impact analysis of a flood control plan in a river basin	Dutta, D, Herath, S, Musiake, K	2006	<i>Hydrological Processes</i> , 20(6), 1365–1384. https://doi.org/10.1002/hyp.6092
5	Environmental multifunctionality of Indonesian agriculture	F. Agus, I. Irawan, H. Suganda, W. Wahyunto, A. Setiyanto, M. Kundarto	2006	<i>PADDY AND WATER ENVIRONMENT</i> , 4(4), 181–188. https://doi.org/10.1007/s10333-006-0047-5
6	Water Management Tasks in the Summer Polders of The Nemunas Lowland	Antanas Lukianas, Saulius Vaikasas, and Arvydas Povilas Malisauskas	2006	<i>Irrigation and Drainage</i> , 55(2), 145–156. https://doi.org/10.1002/ird.230
7	Impacts of the summer 2007 floods on agriculture in England	H. Posthumus, J. Morris, T.M. Hess, D. Neville, E. Phillips and A. Baylis	2009	<i>JOURNAL OF FLOOD RISK MANAGEMENT</i> , 2(3), 182–189. https://doi.org/10.1111/j.1753-318X.2009.01031.x
8	Local Economic Impacts of Natural Disasters	Yu Xiao	2011	<i>Journal of Regional Science</i> , 51(4), 804–820. https://doi.org/10.1111/j.1467-9787.2011.00717.x
9	Multi-factor impact analysis of agricultural production in Bangladesh with climate change	Alex C. Ruane, David C. Major, Winston H. Yu, Mozaharul Alam, Sk. Ghulam Hussain, Abu Saleh Khan, Ahmadul Hassan, Bhuiya Md. Tamim Al Hossain, Richard Goldberg, Radley M. Horton, Cynthia Rosenzweig	2013	<i>Global Environmental Change</i> , 23(1), 338–350. https://doi.org/https://doi.org/10.1016/j.gloenvcha.2012.09.001

10	Review Article: Economic evaluation of flood damage to agriculture– review and analysis of existing methods	P. Brémond, F. Grelot, and A.L. Agenais	2013	<i>NATURAL HAZARDS AND EARTH SYSTEM SCIENCES</i> , 13(10), 2493–2512. https://doi.org/10.5194/nhess-13-2493-2013
11	Using GIS to map impacts upon agriculture from extreme floods in Vietnam	Vu Ngoc Chau, John Holland, Sue Cassells, Mike Tuohy	2013	<i>Applied Geography</i> , 41, 65–74. https://doi.org/https://doi.org/10.1016/j.apgeo.2013.03.014
12	Socioeconomic scenarios and flood damage assessment methodologies for the Taihu Basin, China	E.C. Penning-Rowsell, W. Yanyan, A.R. Watkinson, J. Jiang and C. Thorne	2013	<i>Journal of Flood Risk Management</i> , 6(1), 23–32. https://doi.org/10.1111/j.1753-318X.2012.01168.x
13	Benefits Identification and Evaluation of Floodwater Utilization in Baicheng Region, North-Eastern China	Subing Lü, Wenchuan Wang And Shiguo Xu	2014	<i>Irrigation and Drainage</i> , 63(1), 38–45. https://doi.org/10.1002/ird.1781
14	An agricultural flash flood loss estimation methodology: the case study of the Koiliaris basin (Greece), February 2003 flood	Anthi-Eirini K. Vozinaki, George P. Karatzas, Ioannis A. Sibetheros, Emmanouil A. Varouchakis	2015	<i>Natural Hazards</i> , 79(2), 899–920. https://doi.org/10.1007/s11069-015-1882-8
15	Economic impact upon agricultural production from extreme flood events in Quang Nam, central Vietnam	Vu Ngoc Chau, Sue Cassells, John Holland	2015	<i>Natural Hazards</i> , 75(2), 1747–1765. https://doi.org/10.1007/s11069-014-1395-x
16	Impact of flood disasters in Bangladesh: A multi-sector regional analysis	Afsana Haque, Sarwar Jahan	2015	<i>International Journal of Disaster Risk Reduction</i> , 13, 266–275. https://doi.org/10.1016/j.ijdr.2015.07.001
17	Flood damage assessment in the Pampanga river basin of the Philippines	B.B. Shrestha, T. Okazumi, M. Miyamoto and H. Sawano	2016	<i>JOURNAL OF FLOOD RISK MANAGEMENT</i> , 9(4), 355–369. https://doi.org/10.1111/jfr3.12174
18	Floods and associated socioeconomic damages in China over the last century	Weili Duan, Bin He, Daniel Nover, Jingli Fan, Guishan Yang, Wen Chen, Huifang Meng, Chuanming Liu	2016	<i>Natural Hazards</i> , 82(1), 401–413. https://doi.org/10.1007/s11069-016-2207-2
19	Urban flood depth-economic loss curves and their amendment based on resilience: evidence from Lizhong Town in Lixia River and Houbai Town in Jurong River of China	Xianhua Wu, Lei Zhou, Ge Gao, Ji Guo, Zhonghui Ji	2016	<i>Natural Hazards</i> , 82(3), 1981–2000. https://doi.org/10.1007/s11069-016-2281-5

20	Flood depth estimation by means of high-resolution SAR images and lidar data	Fabio Cian, Mattia Marconcini, Pietro Ceccato, and Carlo Giupponi	2018	<i>Natural Hazards and Earth System Sciences</i> , 18(11), 3063–3084. https://doi.org/10.5194/nhess-18-3063-2018
21	Integrated approach to analyze the total flood risk for agriculture: The significance of intangible damages – A case study in Central Vietnam	Pham Hong Nga, Kaoru Takara, Nguyen Cam Van	2018	<i>Journal of Disaster Risk Reduction</i> , 31, 862–872. https://doi.org/https://doi.org/10.1016/j.jdr.2018.08.001
22	A multi-criteria decision-making framework for agriculture supply chain risk management under a circular economy context	Morteza Yazdani, Ernesto D.R.S. Gonzalez, Prasenjit Chatterjee	2019	<i>Management Decision</i> , 59(8), 1801–1826. https://doi.org/https://doi.org/10.1108/MD-10-2018-1088
23	An integrated web framework for HAZUS-MH flood loss estimation analysis	Enes Yildirim, Ibrahim Demir	2019	<i>Nat Hazards</i> , 99, 275–286. https://doi.org/10.1007/s11069-019-03738-6
24	Analysing economic impact on interdependent infrastructure after flood: Pakistan a case in point	Muhammad Abdullah Khalid and Yousaf Ali	2019	<i>Environmental Hazards</i> , 18(2), 111–126. https://doi.org/10.1080/17477891.2018.1496899
25	Crop insurance model to consolidate academia-industry cooperation: a case study over Assam, India	Subhro Banerjee, A. C. Pandey	2019	<i>Spatial Information Research</i> , 27(6), 719–731. https://doi.org/10.1007/s41324-019-00291-z
26	Evaluating the flood damage on dairy farms: A methodological proposal	Anna Gaviglio, Rosalia Filippini, Daniela Molinari, Maria Elena Marescotti, Eugenio Demartini	2019	<i>Aestimum</i> , 75, 183–205. https://doi.org/10.13128/aestim-8150
27	Flood hazard assessment and mapping of River Swat using HEC-RAS 2D model and high-resolution 12-m TanDEM-X DEM (WorldDEM)	Muhammad Farooq, Muhammad Shafique, Muhammad Shahzad Khattak	2019	<i>Natural Hazards</i> , 97(2), 477–492. https://doi.org/10.1007/s11069-019-03638-9
28	Development of Flood Damage Estimation Model for Agriculture– Case Study in the Bago Floodplain, Myanmar	Shelly Win, Win Win Zin, and Akiyuki Kawasaki	2020	<i>Journal of Disaster Research</i> , 15(3), 242–255. https://doi.org/10.20965/jdr.2020.p0242
29	Dynamic inoperability input-output modeling for economic losses estimation in industries during flooding	Qazi Muhammad Yaseen, Rehman Akhtar, Muhammad Kaleem Ullah Khalil, Qazi Muhammad Usman Jan	2020	<i>Socio-Economic Planning Sciences</i> , 72. https://doi.org/10.1016/j.seps.2020.100876

30	Economic impact assessment of natural disaster with multi-criteria decision making for interdependent infrastructures	Muhammad Abdullah Khalid, Yousaf Ali	2020	<i>Environment, Development and Sustainability</i> , 22(8), 7287–7311. https://doi.org/10.1007/s10668-019-00499-x
31	Flood Risk Reduction from Agricultural Best Management Practices	Federico Antolini , Eric Tate , Brent Dalzell , Nathan Young, Kris Johnson, Peter L. Hawthorne	2020	<i>Journal of the American Water Resources Association</i> , 56(1), 161–179. https://doi.org/10.1111/1752-1688.12812
32	Assessment of direct economic losses of flood disasters based on spatial valuation of land use and quantification of vulnerabilities: a case study on the 2014 flood in Lishui city of China	Haixia Zhang, Weihua Fang, Hua Zhang, and Lu Yu	2021	<i>Natural Hazards</i> , 109(2), 1327–1348. https://doi.org/10.1007/s11069-021-04880-w
33	Built environment and agricultural value at risk from Hurricane Irma flooding in Florida (USA)	Alexander J. Miller, Mauricio E. Arias, Sergio Alvarez	2021	<i>Natural Hazards</i> , 109(2), 1327–1348. https://doi.org/10.1007/s11069-021-04880-w
34	Datasets of drought and flood impact on croplands in Southeast Asia from 1980 to 2019	Manjunatha Venkatappa, Nophea Sasaki	2021	<i>DATA IN BRIEF</i> , 38. https://doi.org/10.1016/j.dib.2021.107406
35	Empirical evidence from Bangladesh of assessing climate hazard-related loss and damage and state of adaptive capacity to address them	Joy Bhowmik, Haseeb Md. Irfanullah, Samiya Ahmed Selim	2021	<i>Climate Risk Management</i> , 31. https://doi.org/10.1016/j.crm.2021.100273
36	Information diffusion theory-based approach for the risk assessment of meteorological disasters in the Yangtze River Basin	Yu Xiaobing, Li Chenliang, Huo Tongzhao, Ji Zhonghui	2021	<i>NATURAL HAZARDS</i> , 107(3), 2337–2362. https://doi.org/10.1007/s11069-020-04418-6
37	Multidimensional research on agrometeorological disasters based on grey BP neural network	Bingjun Li and Shuhua Zhang	2021	<i>Grey Systems</i> , 11(4), 537–555. https://doi.org/10.1108/GS-05-2020-0060
38	Process-Based Flood Risk Assessment for Germany	Nivedita Sairam, Fabio Brill, Tobias Sieg, Mostafa Farrag, Patric Kellermann, Viet Dung Nguyen, Stefan Lüdtke, Bruno Merz, Kai Schröter, Sergiy Vorogushyn, and Heidi Kreibich	2021	<i>Earth's Future</i> , 9(10). https://doi.org/10.1029/2021EF002259
39	Tidal Flood Risk on Salt Farming: Evaluation of Post Events in the Northern Part of Java Using a Parametric Approach	Anang Widhi Nirwansyah, Boris Braun	2021	<i>Geosciences (Switzerland)</i> , 11(10). https://doi.org/10.3390/geosciences11100420

40	Will Climate Change Exacerbate the Economic Damage of Flood to Agricultural Production? A Case Study of Rice in Ha Tinh Province, Vietnam	Pham Quy Giang and Tran Trung Vy	2021	<i>Frontiers in Environmental Science</i> , 9. https://doi.org/10.3389/fenvs.2021.643947
41	A validated geospatial model approach for monitoring progress of the Sendai Framework: The example of people affected in agriculture due to flooding in Ecuador	J. Manuel Urrutia II, Konstantin Scheffczyk, Guido Riembaauer, Jhoyzett Mendoza, Darwin Yanez, Stalin Jiménez, Antonio Ramírez, Marlon Acosta, Jenny Argüello, Brenda Huerta, Markus Neteler, Yvonne Walz	2022	<i>PROGRESS IN DISASTER SCIENCE</i> , 15. https://doi.org/10.1016/j.pdisas.2022.100233
42	Farm level damage and loss assessment of natural disasters: How realistic are the assessments?	Femi Elizabeth George A. Prema, M. Hema and P. Prameela	2022	<i>Journal of Tropical Agriculture</i> , 60(1), 22–30. https://www.scopus.com/inward/record.uri?eid=2-s2.0-
43	Predicting Flood Hazards in the Vietnam Central Region: An Artificial Neural Network Approach	Minh Pham Quang and Krti Tallam	2022	<i>Sustainability (Switzerland)</i> , 14(19). https://doi.org/10.3390/su141911861
44	Role of in-situ and ex-situ livelihood strategies for flood risk reduction: Evidence from the Mayurakshi River Basin, India	Aznarul Islam, Susmita Ghosh, Suman Deb Barman, Nandy, Biplab Sarkar	2022	<i>International Journal of Disaster Risk Reduction</i> , 70. https://doi.org/10.1016/j.ijdrr.2021.102775
45	An integrated approach to evaluating inland waterway disruptions using economic interdependence, agent-based, and Bayesian models	Paul M. Johnson, Hiba Baroud, Craig Philip, and Mark Abkowitz	2023	<i>Engineering Economist</i> , 68(1), 2–19. https://doi.org/10.1080/0013791X.2022.2139029
46	Operational forecasting inundation extents using REOF analysis (FIER) over lower Mekong and its potential economic impact on agriculture	Chi-Hung Chang, Hyongki Lee, Son K. Do, Tien L.T. Du, Kel Markert, Faisal Hossain, Shahryar Khaliq Ahmad, Thanapon Piman, Chinaporn Meechaiya, Duong D. Bui, John D. Bolten, Euiho Hwang, Hahn Chul Jung	2023	<i>Environmental Modelling and Software</i> , 162. https://doi.org/10.1016/j.envsoft.2023.105643

47	Riverine flood risk assessment with a combined model chain in southeastern China	Lihong Wang, Shenghui Cui, Jianxiong Tang, Lei Fang, Xuejuan Fang, Sabita Shrestha, Bikram Manandhar, Jinliang Huang, Vilas Nitivattananon	2023	<i>ECOLOGICAL INDICATORS</i> , 154. https://doi.org/10.1016/j.ecolind.2023.110686
48	Utilizing machine learning algorithm, cloud computing platform and remote sensing satellite data for impact assessment of flood on agriculture land	Himanshu Kumar, Rohan Kumar, Sujay Dutta, Magan Singh, and Sateesh Kr. Karwariya	2023	<i>CURRENT SCIENCE</i> , 125(8), 886–895. https://doi.org/10.18520/cs/v125/i8/886-895
49	Assessing the impact of climate change on flood inundation and agriculture in the Himalayan Mountainous Region of Bhutan	Pema Syldon, Badri Bhakta Shrestha, Mamoru Miyamoto, Katsunori Tamakawa, Shinichiro Nakamura	2024	<i>Journal of Hydrology: Regional Studies</i> , 52. https://doi.org/10.1016/j.ejrh.2024.101687
50	Causes and Impacts of Flood Events in Emilia-Romagna (Italy) in May 2023	Letizia Cremonini, Pierluigi Randi, Massimiliano Fazzini, Marianna Nardino, Federica Rossi and Teodoro Georgiadis	2024	<i>LAND</i> , 13(11). https://doi.org/10.3390/land13111800
51	Decadal mapping of flood inundation and damage assessment in the confluence region of Rivers Niger and Benue using multi-sensor data and Google Earth Engine	Caleb Odiji, Godstime Jamesa, Ademuyiwa Oyewumia, Shomboro Karaua, Belinda Odiaa, Halima Idrisa, Olaide Aderojua, Abubakar Taminua	2024	<i>JOURNAL OF WATER AND CLIMATE CHANGE</i> , 15(2), 348–369. https://doi.org/10.2166/wcc.2024.166
52	Determination of potential hazard level for flood-induced damage during different life cycle stages of T. Aman rice along the floodplain of the Jamuna River	S.M. Bahar , Fariha Tabassum , Nusrat Tahmina Moumita , Md. Anisuzzaman Rafy	2024	<i>Progress in Disaster Science</i> , 23. https://doi.org/10.1016/j.pdisas.2024.100353
53	Flood Impacts on Agriculture under Climate Change: The case of the Awanui Catchment, New Zealand	Utkur Djanibekov, Maksym Polyakov, Heather Craig, Ryan Paulik	2024	<i>Economics of Disasters and Climate Change</i> , 8(2), 283–316. https://doi.org/10.1007/s41885-024-00147-3
54	Substantial impacts of climate shocks in African smallholder agriculture	Philip Wollburg, Yannick Markhof, Thomas Bentze, Giulia Ponzini	2024	<i>Nature Sustainability</i> , 7(11), 1525–1534. https://doi.org/10.1038/s41893-024-01411-w

55	Unravelling the complexities of wetland agriculture, climate change, and coping mechanisms: an integrative review using economics and satellite approaches	Md. Monirul Islam	2024	<i>ENVIRONMENT DEVELOPMENT AND SUSTAINABILITY</i> . https://doi.org/10.1007/s10668-024-05152-w
56	Assessment of flood hazards using morphometric compound factor and hypsometric integral in lower Gandak basin, India	Sunil Kumar Patel, Parthapratim Ghosh, Dev Sen Gupta, Nidhi Gahlot, Jayanta Das	2025	<i>ENVIRONMENTAL MONITORING AND ASSESSMENT</i> , 197(10). https://doi.org/10.1007/s10661-025-14475-8
57	Beninese rice challenging climate change	Viwagbo Kinhou	2025	<i>Development and Sustainability in Economics and Finance</i> , 5, 100034–100034. https://doi.org/https://doi.org/10.1016/j.dsef.2024.100034
58	Channel morphology of the Indus, and the growing risk of floods related damages in the Indus River basin	Raveen Salman Monique Muhammad, Fatima Atif Fort, Azmat	2025	<i>NATURAL HAZARDS</i> , 121(13), 15789–15821. https://doi.org/10.1007/s11069-025-07429-3
59	Distributed hydrodynamic modelling for assessing flood impacts on crops: Assessing flood-resilient crop management in a coastal basin of central Italy	Thomas Antonio Fernando Maria Rulli, Davide Chiarelli, Lucaora Annis, Nardi, Cristina Danilo	2025	<i>Agricultural Water Management</i> , 309. https://doi.org/10.1016/j.agwat.2025.109352
60	Effects of flooding on rice biomass in Hanoi city on the basis of deep learning application and Sentinel-1A data	Anh Ngoc Thi Do, Tuyet Anh Thi Do	2025	<i>APPLIED GEOMATICS</i> , 17(3), 501–518. https://doi.org/10.1007/s12518-025-00631-9
61	Flood disaster industry-linked economic impact and risk assessment: a case study of Yangtze River Economic Zone	Han Sun, Zhiyun Zha, Chao Huang, Xiaohui Yang	2025	<i>Environment, Development and Sustainability</i> , 27(7), 15703–15726. https://doi.org/10.1007/s10668-024-04556-y
62	How flood-resilient port infrastructure can reduce economic impacts of climate change: a case study of the US inland waterways	Paul M. Johnson, Celine Wehbe, Hiba Baroud	2025	<i>CIVIL ENGINEERING AND ENVIRONMENTAL SYSTEMS</i> . https://doi.org/10.1080/10286608.2025.2460220
63	Regional economic impact of flood disasters in Yangtze River Economic Zone: A TERM model with a decomposition analysis approach	Ling He, Jiachuan Chen, Hao Chen, Qi Cui	2025	<i>INTERNATIONAL JOURNAL OF DISASTER RISK REDUCTION</i> , 120. https://doi.org/10.1016/j.ijdr.2025.105346

64	Unveiling the nexus of paddy fields and flooded environments: a probabilistic approach to flood impact assessment and loss estimation in paddy agriculture	Suraj Lamichhane, Nirajan Devkota, Arun Bikram Thapa, Dickembs Khatri, Gayatri Joshi, Sarita Dawadi, Ananta Man Singh Pradhan	2025	<i>Paddy and Water Environment</i> , 23(1), 213–225. https://doi.org/10.1007/s10333-024-01010-7
65	Flood Susceptibility Mapping using GIS and Evidential Belief Function Model in Lam Chiang Krai Watershed, Nakhon Ratchasima Province, Thailand	Phetprayoon, T	2025	<i>International Journal of Geoinformatics</i> , 21(6), 29–46. https://doi.org/10.52939/ijg.v21i6.4231
