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Title: Progress in research on risk of storm surge

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摘要: 中国沿海是全球少数几个风暴潮风险最大的区域之一。受全球气候变暖和海平面上升的影响,沿海地区风暴潮灾害风险水平呈显著上升的趋势。从灾害风险理论出发,在对风暴潮风险的认识、风暴潮危险性评估、风暴潮易损性评估,以及风暴潮综合风险评估等四个方面,系统地总结了目前风暴潮风险研究的最新成果、研究进展和存在的主要问题。总体来看,现阶段风暴潮风险评估研究还比较薄弱,未来的风暴潮风险研究应该由单要素评估走向综合评估,加强风暴潮风险评估的综合性和系统性。随着沿海地区社会经济的发展,应充分考虑全球变化和海平面上升对未来风暴潮风险的影响,完善风暴潮综合风险评估体系,提升风暴潮预报预警能力,为风暴潮灾害的防灾减灾工作提供科学依据。

Abstract: The coastal area of China is one of a few regions in the world which are seriously threatened by storm surge and at most risk.Affected by global warming and sea-level rise,the risk of storm surge in coastal areas is obviously rising.Based on the theory of disaster risk,the article systematically summarizes the new research results,research progress and problems of the risk of storm surge from four aspects,such as the awareness of risk,hazard assessment,vulnerability assessment and the comprehensive risk assessment of storm surge.Overall,the study of risk assessment of storm surge is relatively weak at the present stage.In the future the risk study for single factor should turn to comprehensive assessment.It is important to strengthen the comprehensive and systematic study of risk assessment of storm surge.With the development of the economy and society in the coastal areas,we should fully consider the effect of global warming and sea-level rise,perfect the comprehensive risk assessment system of storm surge and

promote capacity of forecasting and early warning of storm surge.It would

provide scientific advices to the government for the prevention and mitigation of

storm surge disaster.

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