



The Financial Benefit of Early Flood Warnings in Europe

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Effective disaster risk management relies on science based solutions to close the gap between prevention and preparedness measures. The outcome of consultations on the UNISDR post-2015 framework for disaster risk reduction highlight the need for cross-border early warning systems to strengthen the preparedness phases of disaster risk management in order to save people's lives and property and reduce the overall impact of severe events. In particular, continental and global scale flood forecasting systems provide vital information to various decision makers with which early warnings of floods can be made. Here the potential monetary benefits of early flood warnings using the example of the European Flood Awareness System (EFAS) are calculated based on pan-European Flood damage data and calculations of potential flood damage reductions. The benefits are of the order of 400 Euro for every 1 Euro invested. Because of the uncertainties which accompany the calculation, a large sensitivity analysis is performed in order to develop an envelope of possible financial benefits. Current EFAS system skill is compared against perfect forecasts to demonstrate the importance of further improving the skill of the forecasts. Improving the response to warnings is also essential in reaping the benefits of flood early warnings.