

# VU Research Portal

## Flood damage mitigation investments

Poussin, J.K.

2016

### **document version**

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

### **citation for published version (APA)**

Poussin, J. K. (2016). *Flood damage mitigation investments: An assessment of (cost-)effectiveness and household decision making*. [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam].

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

### **E-mail address:**

[vuresearchportal.ub@vu.nl](mailto:vuresearchportal.ub@vu.nl)

VRIJE UNIVERSITEIT

## **Flood damage mitigation investments**

**An assessment of (cost-)effectiveness and household decision making**

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad Doctor aan  
de Vrije Universiteit Amsterdam,  
op gezag van de rector magnificus  
prof.dr. V. Subramaniam,  
in het openbaar te verdedigen  
ten overstaan van de promotiecommissie  
van de Faculteit der Aard- en Levenswetenschappen  
op donderdag 28 april 2016 om 9.45 uur  
in de aula van de universiteit,  
De Boelelaan 1105

door

Jennifer Karen Poussin

geboren te Montreuil sous Bois, Frankrijk

promotor: prof.dr. J.C.J.H. Aerts  
copromotoren: prof.dr. W.J.W. Botzen  
dr. P.J. Ward

thesis committee: prof.dr. M.G. Faure  
dr. J. Lamond  
prof.dr. A. Thieken  
dr. P. van Beukering  
prof.dr. J. van der Schee



# Acknowledgments

I would like to thank several people which have, during the past years, helped and supported me in different ways to conduct and finish this thesis.

First, I would like to thank my promotor Jeroen Aerts, for giving me the opportunity to start the PhD at IVM, and for always being present and supportive when difficulties arose during the research and the finalization of the PhD. It has been a long time coming, but we're finally there!

Thank you as well to Wouter Botzen and Philip Ward, my co-promotors. Thank you Wouter for your time (and speed!), your many kind words, and your dedication during the research and the writing of the papers! I learned a tremendous amount working with you over the years. Thank you Philip for the time spent teaching me to use Matlab, writing my first published article with me and supervising Noortje on the Knowledge for Climate project. And thank you Noortje for the great work realized on the Meuse model!

I also would like to thank Laurens Bouwer and Elissaios Papyrakis for their kindness, their time and their work during and after the CoNHaz project. Being involved in this project, and the Knowledge for Climate (KvK) project, gave me opportunities to make new contacts and participate in interesting discussions during workshops and project meetings. As such, the research carried out in Chapter 4 was done in the framework of the Dutch Knowledge for Climate programme, and I'd like to thank: Siebolt Folkertsma, Paul Konings (RWS Limburg), Jan Molleman (Province of Limburg) for providing us with data sets, and Rinus Potter (Waterschap Roer en Overmaas) and Hendrik Buiteveld (RWS Waterdienst) for participating in discussions on the methods used.

A special thanks to the members of the reading committee, Jessica Lamond, Anne-gret Thielen, Joop van der Schee, Michael Faure, and Pieter van Beukering for the time and attention they dedicated to this thesis.

Moreover, the many constructive and helpful comments made by numerous reviewers and editors in the course of the writing and editing process of the chapters

published in this thesis greatly helped to improve my work and are very much appreciated.

I would like to thank all my colleagues at IVM for the time spent at lunches and 'borrels'. Especially I wish to thank Emma for your help with GIS and statistics and the time (and talks!) spent in our office over the years. Thank you to Philip B. for interesting conversations both at IVM and during conferences, such as the one in Davos. Thank you to Ted and Sicco for sharing the office with me and discussing all sorts of subjects! Also a big thank you to the support staff for helping us and organizing events.

With regard to the realization of the survey, I would like to thank a great number of people: at IVM, the colleagues who read and reviewed the survey, and during the field trips all the people I met and who helped me which made such a difference in the realization of the survey - Maïté Fournier and Emmanuel Guilmin at EPAMA, Laure Fossorier and Loïc Fruleux at the DDT Ardennes, M. Pagazzi at the VNF in Givet, M. Guy Suzaine who sent me maps all the way from Givet, and all the people I met in the different villages along the Meuse; M. Sebire at SIAN in the Var; M. Savidan at the Prefecture of Vendée, for warning me against the emotional toll such a survey could take on people; the people from the Prefecture of Charente-Maritime, as well as Thierry Demaegdts from Reconstruire Charron, M. Patrick and Mrs Nelly Robergeau, inhabitants of Charron for their help with the survey and the discussion we had on Xynthia; M. Fradier and Ms Salles from IPSOS for their work on the survey. Also, I would like to thank Geertje Borgers and Olivier Cossé for their help transcribing the answers to the questionnaires into a useful database. It was hard work!

Thank you to all my friends and family, in the Netherlands and in the UK (North and East), for the discussions, for the time spent having fun or doing nothing and relaxing during the PhD! Enfin, merci à ma famille, à mes parents, mon frère, et à toutes les additions à notre famille si spéciale et marrante ! Merci pour votre aide et votre support. Merci maman pour m'avoir aidé sur le questionnaire et pour avoir envoyé les versions de pré-test toi-même (avec tout ces timbres !). Merci aussi à ma famille "étendue", pour toutes les discussions sur la thèse et sur le questionnaire. Cécile, tu en as entendu absolument tous les détails ! Merci à Christophe pour ton aide - de tant de manières différentes ! - ton intérêt et ton support pendant la thèse et depuis. Merci de m'avoir aidé à avancer et à terminer ce travail, je n'y serais juste jamais arrivée sans ton aide... Merci aussi de m'avoir permis de devenir maman et merci à mon Augustin de faire partie de ma vie depuis plus de deux ans. Je vous aime tous les deux.