Prof. Virginie K.E. DUVAT  
Chaire Innovation Senior à l’Institut Universitaire de France  
UMR LIENSs 7266 - Littoral, Environment and Societies  
La Rochelle University-CNRS (National Centre for Scientific Research)  
Institute of Littoral and Environment, 2 rue Olympe de Gouges- 17000 La Rochelle - France  
Email: virginie.duvat@univ-lr.fr  
Tel Office: + 33 5 46 50 76 47 / Mobile: 33 6 50 81 39 27

CURRICULUM VITAE

Professional experience and position
Since 2006  Professor of Coastal Geography, La Rochelle University, La Rochelle, France  
1999-2006  Assistant Professor of Coastal Geography, University of La Reunion (South-Western Indian Ocean), France

Education
2005  Accreditation to supervise research (HDR in French) in Geography - Title: *Geomorphology and management of coral beaches in south-western Indian Ocean Islands*, University of Paris IV-Sorbonne, Paris, France.  
1996-1998  PhD in Geography – Title: *Coral beaches and islands of the Seychelles Islands: from physical processes to beach and island management (Mahe, Praslin, La Digue and Desroches islands)*, University of La Reunion, Reunion Island, France.

Fields of expertise

Thematic areas:
Coastal geomorphology: multidecadal changes in the configuration of atoll reef islands and high mountainous islands’ beach-dune systems, including island and shoreline change assessment, impacts of and resilience to tropical cyclones and low-to-medium energy climate events (including marine inundation and flooding, impacts on shoreline position and coastal vegetation), interference of human activities with natural processes, reef-island interactions.  
Analysis of compound weather and climate events and their cascades of impacts: critical analysis of the analysis of compound weather and climate events in the IPCC’s AR6 WGI and WGII reports; development of a methodological framework to analyze compound events and their cascades of impacts, with applications to tropical small island; chains of impacts of tropical cyclones, distant-source wells, and ENSO phases; chains of impacts of climate change in various types of island environments (i.e. high mountainous and low-lying atoll reef islands; highly-modified vs. natural island environments).  
Trajectories of Exposure and Vulnerability of Small Islands to climate-related events and climate change: assessment of (i) environmental change (i.e. shoreline change; change in the nature, dimensions and health of coastal and marine natural buffers), (ii) its drivers (climate-related, ecological and anthropogenic), and
(iii) the contribution of environmental change to the exposure and vulnerability of island communities to climate-related risks, (iv) analysis of the role of risk reduction and adaptation responses in changes on exposure and vulnerability, (v) reconstruction of long-term Trajectories of Exposure and Vulnerability of island countries and territories (e.g. Saint-Martin, Caribbean).

**Analysis of risk reduction and adaptation policies and measures:** reconstruction of past-to-present Trajectories of responses of small island countries and territories; evaluation of adaptation responses; analysis of nature-based coastal defence and relocation in tropical small islands.

**Study areas:**
- **Indian Ocean islands:** French overseas territories, including Reunion Island and the Scattered Islands; small island countries, including Mauritius, Rodrigues, the Seychelles Islands, Mayotte, the Maldives, Comoros*, and Madagascar*
- **Pacific Ocean islands:** French overseas territories, including French Polynesia, New Caledonia, Wallis and Futuna*; small island countries, including Fiji*, Kiribati, Tuvalu*, Vanuatu*
- **Caribbean islands:** French overseas territories, including Saint-Martin, Saint-Barthélemy, Guadeloupe, Martinique; small island countries, including Anguilla, the British Virgin Islands, Dominica*, Grenada*, Jamaica*, Trinidad and Tobago*
*Forthcoming (included in IUf project)

**Current research projects**

2023-2026  **ADAPTNAT (Assessing Ecosystem-based Adaptation projects in tropical small islands)**
Funding: AFD (French Development Agency) (206 000 €) – Lead: V.K.E. Duvat (UMR LIENSs 7266) – Website: *under construction*.

The ADAPTNAT research project aims at questioning the risk reduction and adaptation benefits of Nature-Based Coastal Defence projects in tropical small islands, based upon the mapping and assessment of projects deployed in the south-western Indian Ocean. It will thereby contributes to local to regional capacity building in the area of ecosystem-based adaptation.

2022-2028  **FUTURISKS (Past-to-FUTURE Coastal RISKS in Tropical French Overseas Island Territories: from impacts to solutions)**
Funding: Priority Research Programme (PPR) on Ocean Solutions-ANR (French Research Agency) (2.4 M€) – Leads: V.K.E. Duvat and X. Bertin UMR LIENSs 7266); involves 17 partners – Websites: [https://futurisks.recherche.univ-lr.fr/](https://futurisks.recherche.univ-lr.fr/); [https://www.ocean-climat.fr/Les-actions-et-projets/Les-projets-de-recherche/FUTURISKS](https://www.ocean-climat.fr/Les-actions-et-projets/Les-projets-de-recherche/FUTURISKS)

The FUTURISKS research project aims at assisting institutional and non-institutional actors in the implementation of coastal adaptation in French overseas territories of the Caribbean and Indian and Pacific Oceans. It comprises five Work Packages dedicated to (1) The analysis of coastal hazards and of the impacts of major climate-related events; (2) High resolution numerical modeling of marine flooding; (3) Past-to-future adaptation solutions; (4) The evaluation of uncertainty and its inclusion in adaptation policies; (5) Citizen science.

2022-2025  **ADAPTOM (Lessons learnt from the analysis of Nature-Based Coastal Defence in French Overseas Territories)**
Funding: Fondation de France (150 000€) - Lead: V.K.E. Duvat (UMR LIENSs 7266); involves 5 partners – Website: [https://lienss.univ-larochelle.fr/ADAPTOM-598](https://lienss.univ-larochelle.fr/ADAPTOM-598)

The ADAPTOM research project interrogates the risk reduction and adaptation benefits of Nature-Based Coastal Defence in tropical small islands, based upon the mapping and assessment of projects deployed in French overseas territories. It thereby contributes to local to national capacity building in the area of ecosystem-based adaptation.
Past research projects

2016-2020  STORISK (Small Islands addressing climate change: towards storylines of risk and adaptation) – Funding: ANR (National Research Agency), 950,000 € - Coordinator: V.K.E. Duvat (UMR LIENSs 7266); interdisciplinary project involving 5 scientific partners – Website: http://lienss.univ-larochelle.fr/storisk ; http://www.agence-nationale-recherche.fr/Projet=ANR-15-CE03-0003

2016-2020  INSaPTION (Integrating SEA-level projections in climate services for coastal adaptaTION) Funding: Europe, under the European Research Area for Climate Services ERA4CS (Topic A), 1,500,000 € - Coordinator: G. Le Cozannet (BRGM-Orléans, France); includes 6 partners (French Geological Survey; Global Climate Forum, Germany; Institute for Marine and Atmospheric Research, Utrecht, the Netherlands; CREGIEA Private services company, France; Mediterranean Institute for Advanced Studies, Balearic Islands, Spain; UMR LIENSs 7266, University of la Rochelle-CNRS, France); Coordinator or Work Package 3 (French Polynesia case study): V.K.E. Duvat – https://lienss.univ-larochelle.fr/Insaption

2016-2020  TIREX (Dissemination of the lessons learnt from climate disasters for the enhancement of risk reduction and adaptation capacities in Caribbean small islands, 517,000€ - Coordinator: F. Léone (University of Montpellier, France); includes 7 partners (UMR GRED, University of Montpellier 3-IRD; UMR LGP 8591 Paris I University-CRS; UMR 8053 LC2S University of the Antilles-CNRS, EA 4539 LARGE, University of the Antilles; Météo-France Antilles-Guyane; UMR LIENSs La Rochelle University-CNRS); Coordinator of Work Package 2 (Impacts of and resilience to the September 2017 tropical cyclones at different spatial and temporal scales): V.K.E. Duvat - https://lienss.univ-larochelle.fr/Tirex-1567

International scientific responsibilities

Contribution to IPCC and French IPCC focal point activities:
- Lead Author of the Small Islands Chapter (Chapter 15), WGII, IPCC AR6 (released in 2022)
- Contributing Author of the IPCC SROCC (Special Report on the Ocean and Cryosphere) (released in 2019)
- Lead Author of the Small Islands Chapter (Chap. 29), WGII, IPCC AR5 (released in 2014)
- 2012: Coordination of the French IPCC Focal Point Report on The French overseas territories in the face of climate change (report to the Prime Minister and Senate

Responsibilities in scientific journals:
Since 2020: member of the International Advisory Board of Wiley Interdisciplinary Reviews: Climate Change (WIREs Climate Change; IF: 10,07)
Since 2021: editor of the newly launched journal Cambridge Prisms: Coastal Futures

Peer-reviewing:

Consultancy (recent examples):
2020  GGCA+ project (European Union): training of institutional actors on coastal risk reduction and adaptation to climate change
2019  Assessment of coastal erosion at various tourist sites (Dominican Republic, Mauritius)
2016  Post Disaster Needs Assessment (PDNA), Farquhar Atoll, Seychelles Islands, category 5 Tropical Cyclone Fantala (April 2016), World Ban-EU-UN – In charge of environmental impacts
2016  Impacts of the Climate Adaptation Programme in the Coastal Zone of Mauritius on future tourism, Global Adaptation Fund – Expertise conducted on behalf of the Club Med Company.

Current national scientific responsibilities
2022-28  Member of the Scientific Committee of the French Coastal Conservatory
2022-23  Member of the steering committee, International Festival of Geography, Saint-Dié 2010

Qualifications and awards
2020  Chevalier of the French Legion of Honor, Ministry of Higher Education and Research
2020  Exceptional Class 1 Professor (National University Council)
2015  Lauriers Nationaux Prize of the Fondation de France & Coup de Coeur Prize of the Forum des Associations et Formations, for the research project VulnераRe
2014  Literary award Jean Rostand for the book “Those islands that could disappear” Le Pommier-Belin, Paris
2014  Nomination of the book “Natural” disasters?“ for the Environmental Book Award and Political Ecology Book Award
2013  First Class Professor (National University Council)
2012  Special Regional Research Innovation Award, research project QUALIPLAGES
2011  Scientific Excellence Award Level 1 (National University Council)
2005  Habitation, University Paris IV-Sorbonne, “Geomorphology, development, and management of coral coasts in Southern Indian Ocean Islands”, with unanimous summa cum laude
2004  Best scientific contribution, Regional Forum of Ocean Sciences, Mauritius
2000  Armand Rousseau Award for the book “The coasts of Seychelles”, L’Harmattan, Paris
1999  PhD in geography and development, La Reunion University, “The coasts of Seychelles: from coastal dynamics to beach management”, with unanimous summa cum laude
1991  Agregation in geography (rank: 8)
1990  CAPES (secondary-school teaching diploma) in history and geography

Thesis supervision/examination
2008-2023: supervision of 8 PhD candidates, examination of 20 PhD theses and habilitations in France and Northern Ireland

Main publications
Selected peer-reviewed scientific papers


- SALMON C., DUVAT V.K.E., 2018. Enjeux de l’intégration des espaces naturels littoraux dans la gestion des risques liés à la mer. La Houille Blanche 2, 5-12. https://doi.org/10.1051/lhb/2018015

Selected books and book chapters


