



# THE CARIBBEAN ACADEMY OF SCIENCES (CAS) REGIONAL EXECUTIVE Guest Webinar Series

*Hurricane waste management  
in insular contexts: systemic  
implications and community  
perceptions*



**TOPIC:**  
**CAS GUEST WEBINAR SERIES-**  
**DR. GAÏA MARCHESINI**

**DAY/TIME:**  
**JUNE 16, 2025, 1:00 PM**

[HTTPS://STA-UWI-  
EDU.ZOOM.US/J/95817884151?  
PWD=HWLX6OEIZQP5VO6HCLMQXF  
GZWAVR1R.1](https://sta-uw.edu.zoom.us/j/95817884151?pwd=HWLX6OEIZQP5VO6HCLMQXFQZWAVR1R.1)

Presenter:  
Gaïa Marchesini

Lab'Urba  
(Gustave Eiffel  
University)





**THE CARIBBEAN ACADEMY OF SCIENCES (CAS)  
REGIONAL EXECUTIVE  
2025 GUEST WEBINAR SERIES**

 **Date/Time:** June 16<sup>th</sup>, 2025, 1:00 PM America/Port\_of\_Spain.

 **Platform:** Zoom (Virtual Only)

 **Webinar Registration Link:**

[https://docs.google.com/forms/d/e/1FAIpQLSdPVyD\\_dFIHdmpDrAWCvBB4Ar85EumkBFvxpw8MZmkKmTjE\\_g/viewform?usp=sharing](https://docs.google.com/forms/d/e/1FAIpQLSdPVyD_dFIHdmpDrAWCvBB4Ar85EumkBFvxpw8MZmkKmTjE_g/viewform?usp=sharing)

Webinar Evaluation Link:

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 **Zoom Credentials:**

[https://sta-uwi-edu.zoom.us/j/93785892089?](https://sta-uwi-edu.zoom.us/j/93785892089?pwd=O90qmJtRRdALBfknIwjJhTPV2KmxMG.1)  
[pwd=O90qmJtRRdALBfknIwjJhTPV2KmxMG.1](https://sta-uwi-edu.zoom.us/j/93785892089?pwd=O90qmJtRRdALBfknIwjJhTPV2KmxMG.1)

 **Meeting ID:** 958 1788 4151

 **Passcode:** 484615

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**PROGRAMME**

**1:00 - 1:15 pm -**

Opening Remarks: Prof. Mark Wuddivira (President, CAS Regional Executive)

**1:16 - 1:45 am -**

Guest Presentation: Hurricane Waste Management in Insular Contexts: Systemic Implications and Community Perceptions

Gaia Marchesini, associate doctor at Lab'Urba (Gustave Eiffel University).

**1:46 - 2:15 pm -**

Discussion / Question & Answer

**2:16 - 2:30 pm -**

Closing Remarks

# HURRICANE WASTE MANAGEMENT IN INSULAR CONTEXTS: SYSTEMIC IMPLICATIONS AND COMMUNITY PERCEPTIONS

GAÏA MARCHESINI,  
LAB'URBA (GUSTAVE EIFFEL UNIVERSITY)

## Abstract

Disasters generate huge amounts of waste, for example, the waste from the 1995 Kobe, Japan, Great Hanshi-Awaji earthquake took up ten years of landfill space (Lauritzen, 1998). Poor management of disaster waste has been demonstrated to impede rescue and reconstruction efforts, facilitate the spread of diseases, adversely affect the environment, and diminish the long-term resilience of the waste system (Brown et al., 2011). Consequently, scholars in the field acknowledge the necessity of meticulous planning for disaster waste management (Crowley, 2017; Gabrielli et al., 2018; Poudel et al., 2018). The initial step in this process is to comprehend the implications of disaster waste management, including the types of waste, their quantities, and their locations. Following this, the human and technical resources available must be identified. Finally, it is imperative to recognise that effective disaster waste management, akin to all reconstruction efforts, necessitates the incorporation of impacted communities and the consideration of their cultural specificities.

This presentation will explore these aspects through the issue of hurricane waste in the French Antilles. The investigation will be built on a previous study led by the DéPOs (Déchets Post-Ouragans) project following Hurricane Irma in Saint-Martin island, and on a new project on the role of local populations in disaster waste management, funded by the Red Cross Foundation, which includes one field study in Marie-Galante.

## References

- Brown, C., Milke, M., Seville, E., 2011. Disaster waste management: A review article. *Waste Manag.* <https://doi.org/10.1016/j.wasman.2011.01.027>
- Crowley, J., 2017. A measurement of the effectiveness and efficiency of pre-disaster debris management plans. *Waste Manag.* <https://doi.org/10.1016/j.wasman.2017.02.004>
- Gabrielli, F., Amato, A., Balducci, S., Magi Galluzzi, L., Beolchini, F., 2018. Disaster waste management in Italy: Analysis of recent case studies. *Waste Manag.* 71, 542–555. <https://doi.org/10.1016/j.wasman.2017.10.012>
- Lauritzen, E.K., 1998. Emergency construction waste management. *Saf. Sci.* 30, 45–53.
- Poudel, R., Hirai, Y., Asari, M., Sakai, S. ichi, 2018. Establishment of unit generation rates of building debris in Kathmandu Valley, Nepal, after the Gorkha earthquake. *J. Mater. Cycles Waste Manag.* 20, 1663–1675. <https://doi.org/10.1007/s10163-018-0731-8>

## Biography

### Gaïa Marchesini

Gaïa Marchesini focuses on the adaptation of cities and urban socio-technical systems to climate change. After obtaining an engineering degree in water and the environment at the Ecole des Ponts et Chaussées, she completed a PhD on the reorganisation of the waste management system after a natural disaster at the Gustave Eiffel University. She worked on quantifying the waste generated by water-related disasters and on local responsibilities in terms of waste management planning in the event of a disaster. Finally, this research project, funded by the Red Cross Foundation, will allow her to pursue the questions raised in my thesis by focusing on an aspect that has been little studied: the role of disaster victims in post-disaster waste management.