

# 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories

Volume 5

## Waste

Edited by Calvo Buendia, E., Tanabe, K., Kranjc, A.,  
Baasansuren, J., Fukuda, M., Ngarize S.,  
Osako, A., Pyrozhenko, Y., Shermanau, P. and Federici, S.



**Task Force on National Greenhouse Gas Inventories**

A report prepared by the Task Force on National Greenhouse Gas Inventories (TFI) of the IPCC and accepted by the Panel but not approved in detail.

Whilst the information in this IPCC Report is believed to be true and accurate at the date of going to press, neither the authors nor the publishers can accept any legal responsibility or liability for any errors or omissions. Neither the authors nor the publishers have any responsibility for the persistence of any URLs referred to in this report and cannot guarantee that any content of such web sites is or will remain accurate or appropriate.

Published by the Intergovernmental Panel on Climate Change.

© The Intergovernmental Panel on Climate Change (IPCC), 2019.

When using the guidelines please cite as:

IPCC 2019, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Calvo Buendia, E., Tanabe, K., Kranjc, A., Baasansuren, J., Fukuda, M., Ngarize S., Osako, A., Pyrozhenko, Y., Shermanau, P. and Federici, S. (eds). Published: IPCC, Switzerland.

IPCC National Greenhouse Gas Inventories Programme  
Technical Support Unit

% Institute for Global Environmental Strategies  
2108 -11, Kamiyamaguchi  
Hayama, Kanagawa  
JAPAN, 240-0115  
[nggip-tsu@iges.or.jp](mailto:nggip-tsu@iges.or.jp)  
[www.ipcc-nggip.iges.or.jp](http://www.ipcc-nggip.iges.or.jp)

ISBN 978-4-88788-232-4

The designations employed and the presentation of material on maps do not imply the expression of any opinion whatsoever on the part of the Intergovernmental Panel on Climate Change concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

# **VOLUME 5**

---

## **WASTE**

### **Coordinating Lead Authors**

Deborah M. Bartram (USA) and Sirintornthep Towprayoon (Thailand)

### **Review Editors**

Fatma Betül Demirok (Turkey) and Anke Herold (Germany)

## Contents

<b>Volume 5</b>	<b>Waste</b>
Chapter 2	Waste Generation, Composition and Management Data
Chapter 3	Solid Waste Disposal
Chapter 5	Incineration and Open Burning of Waste
Chapter 6	Wastewater Treatment and Discharge
Annex 1	Mapping Tables
Annex 2	Worksheets