



ISWA @ IFAT Munich 2024

*Waste Management and
Climate Change*



Title: Climate change and sustainable waste management

When

Day: Tuesday, 14 May 2024
Time: 09:30 – 10:30 AM
Venue: Orange Stage, Hall A5

Summary

There is a significant link between waste management and climate change, and poor waste management is a key contributor to the greenhouse gas emissions. However, this link is often neglected or overlooked. This session will discuss the inextricable link between waste management and climate change and how ISWA represents the sector at the UNFCCC COP process to encourage the further integration of waste & resource management into Nationally Determined Contributions.

Speakers

Carlos Silva Filho, President of ISWA
Arne Ragossnig, Vice-President of ISWA
Anja Schwetje, Vice-Chair of ISWA Working Group on Climate Change
James Law, Chair of ISWA Working Group Landfill and Closing Dumpsites Task Force

Moderator

Aditi Ramola, Technical Director, ISWA

[IFAT Online Program Link](#)



Context

The United Nations has recognized that current efforts to control global warming are inadequate, with actions failing to ensure that temperatures stay below the critical threshold of 2°C, and ideally at 1.5°C, above pre-industrial levels. To meet the climate goals, we need to accelerate interventions and there is a pressing need for innovative strategies to manage greenhouse gases (GHGs) with high Global Warming Potential (GWP) more effectively. For instance, methane (CH₄), a GHG, has a GWP 28 times higher than carbon dioxide when considering a period of 100 years up to 87 times higher in a 20-year period.

Recent research highlights the intricate relationship between sound waste management and climate change. One key aspect involves methane emissions from landfills, emphasizing that these sites are significant sources of potent greenhouse gases. The implication is clear: implementing effective landfill management practices, such as capturing and utilizing methane for energy, becomes crucial for mitigating these emissions. Additionally, waste incineration has been identified as a contributor to greenhouse gas emissions (CO₂), necessitating advancements in waste-to-energy technologies and stringent emission controls to minimize the environmental impact. Plastic production's climate impact is another concern, with research emphasizing the need to reduce plastic use, promote recycling, and explore alternative materials to address the associated greenhouse gas emissions.

Transitioning to a circular economy, where resources are reused and recycled, is identified as a promising strategy to reduce the carbon footprint of waste. Proper and sound waste management is recognized as a crucial component in achieving climate goals and sustainable development, emphasizing the need to integrate waste management strategies into broader climate action plans. Public awareness and community engagement are deemed essential for successful waste reduction and recycling programs, underlining the role of education and behavioral change in addressing climate change through responsible waste disposal. Furthermore, the global trade of waste, particularly the export of plastic waste to low- and middle-income countries, is identified as an issue with environmental justice concerns and contributions to climate change. Addressing these global inequities and implementing responsible waste management practices worldwide are deemed vital for climate justice. In summary, the latest research underscores the multifaceted nature of the connection between waste management and climate change, emphasizing the importance of sustainable practices, technological advancements, and global cooperation in mitigating the environmental impact of waste.

Objectives and Our Call to Action

ISWA's objective in being involved in the global climate change processes is to call upon decision-makers worldwide to incorporate waste and resource management into their Nationally Determined Contributions (NDCs) in the fight against climate change. Through our presence at the COPs – at side events, with a Waste and Resources Pavilion, conducting bilateral meetings with global organisations – we want to amplify the voice of our sector and take the following message forward: ***the waste and resource management sector is a key sector to achieve climate targets and move to a circular economy.***



Our call to action to decision-makers across the globe is to incorporate waste and resource management into their Nationally Determined Contributions (NDCs). By doing so, we can collectively:

1. **Acknowledge the ROI:** Recognise the return on investment in researching and deploying effective waste management solutions worldwide.
2. **Address the Triple Planetary Crisis:** Understand that waste and resource management is instrumental in combating climate change, air pollution, and biodiversity loss.
3. **Invest in Innovation:** Support existing and emerging technologies that advance sustainable waste and resource management.

Conclusions

ISWA recognizes that in order to effect meaningful change in our sector we need to work with all sectors across the value chains. We acknowledge that the ongoing battle against climate change demands a collective effort. ISWA and its dedicated members and partner organisations have long been committed to this mission, working tirelessly to contribute to this journey. As we continue our steadfast work, we view the UNFCCC COPs as pivotal events to further advance towards a world where waste is minimised, resources are optimized the climate crisis is effectively mitigated. At COP28 last year, we seized the moment to unite in purpose and action, embracing waste and resource management as a cornerstone of the global climate strategy.

Session agenda with guiding questions

Perspectives from speakers on how waste and resource management are key to combating climate change with cross-cutting impact, by reducing emissions, conserving energy, and promoting sustainable practices.

Time	Topic	Speaker
09:30 5 min	Welcome and introduction (Introduction to the topic and speakers)	Aditi (moderator)
09:35 45 min	Panel Discussion and Questions The panel will be invited to comment on effective policies and inclusion of waste into the NDCs, key challenges and barriers to implementing effective solutions as well as innovative and promising technologies.	Panellists: - Carlos Silva Filho - Arne Ragossnig - Anja Schwetje - James Law
10:20 10 min	Concluding remarks and panel closing	Moderation: ISWA





Location

The session will take place at the **Orange Stage in Hall A5**.

ISWA Booth (238) and the Orange Stage are both located in Hall, please see below the highlighted bits on where to find us.



Speaker Bios



Carlos Silva Filho

President, International Solid Waste Association (ISWA)

Carlos Silva Filho is a Brazilian lawyer specializing in Administrative & Economic Law, who started working in the waste industry in 1999 as legal advisor at ABRELPE – Brazilian Association of Waste Management Companies, ISWA National Member in Brazil. In 2008 he became ABRELPE's Executive Director and in 2012 its President. Mr. Silva Filho has been dedicated to developing waste related Regulations, Waste Plans, Communication Strategies and Data research and analysis. Mr. Silva Filho has been a member of ISWA since 2005. In 2011 he became a member of the ISWA Board, was elected Vice-President in 2014 and in 2015 he co-founded and chaired the ISWA Young Professionals Group. In 2020 Mr. Silva Filho was nominated and elected as ISWA President.



Anja Schwetje

Scientific Officer at German Environment Agency, Vice-Chair of ISWA WG on Climate Change and Waste Management

Anja Schwetje is a Scientific Officer of the German Environment Agency (UBA) in the Section III 2.4 'Waste Technology, Waste Technology Transfer' since 2014 responsible for topics on waste with a nexus to climate protection and methane reduction. She is the one of the Co-Leads of the Waste Hub of the Climate and Clean Air Coalition (CCAC), Vice-Chair of the Working Group on Climate Change and Waste Management of the International Solid Waste Association (ISWA), Co-Chair of the Working Group on Organic Waste of the PREVENT Waste Alliance and an active member of the Global Methane Initiative (GMI), the German RETech Partnership and others. By profession a process engineer, she has more than 30 years of international experience in waste management and circular economy, and more than 20 years in advising governments, administrations and private sector, especially in accession countries and the EU-neighborhood.



Arne Ragossnig

Managing Director at Ecoconsultants and Vice-President, ISWA

Arne is managing partner at Ecoconsultants an Austrian consultancy focusing on environmental engineering consulting in general and waste related consulting and expert's services in particular. He has been active within ISWA for the last 25 years. Among others he served as interim managing director in 2018 and 2019 and has been responsible for the relocation of the ISWA General Secretariat from Vienna to Rotterdam. Since 2020 Arne is elected as ISWA Vice President and currently serves his second term. He has been and is involved in major ISWA activities such as GWMO 2024, Waste & Resources Pavillon @ COP28, CLOCC, WasteMap and so on.



In his role as associate editor of ISWA's journal Waste Management & Research he was an active part of the editorial group for 20 years and has been promoted to Editor-in-Chief in 2019.



James Law

Vice President in Raleigh, NC - SCS Engineers

Mr. Law is a Vice President of SCS Engineers and our National Geotechnical Expert. He has over three decades of engineering and management experience in geotechnical engineering, solid waste management, landfill engineering, construction quality assurance (CQA) services, and subsurface soil investigation programs (including embankment and MSE Wall evaluation). He is a licensed Professional Engineer in North Carolina, South Carolina, Virginia, Maryland, and Idaho. He belongs to several industry organizations, including ASCE, SWANA, USGBC, PENC, and is formerly a Board Member of the International Solid Waste Association (ISWA). Mr. Law is experienced in closure design, LFG blower and flare foundation design, geotechnical and geosynthetic / soil material testing and analysis, resident/construction engineering and construction quality assurance services, project scheduling and construction cost estimate, foundation bearing/settlement analysis and design, liquefaction analysis, static and seismic slope stability analyses using STABL program, seismic permanent displacement analysis, geosynthetic reinforced slope, embankment and pavement design, writing of geotechnical soil reports, and construction completion certification reports.



Aditi Ramola (moderator)

Technical Director, ISWA

Aditi is the Technical Director at the International Solid Waste Association (ISWA) where she manages international projects and partnerships with the UN, provides assistance to ISWA's Working Groups and helps develop innovative projects globally to further strengthen cooperation with ISWA's partners and international organizations. Her skills are particularly focused on solid waste management and environmental issues. Aditi holds a master's in Environmental Technology and International Affairs from the Vienna University of Technology. She has several years of experience in the private sector including at Caterpillar Inc. before joining the United Nations Industrial Development Organization (UNIDO) in the Climate Policy and Networks unit. Aditi is also passionate about science education and was the founding member and lead of the ISWA Young Professionals Group (YPG) initiative on Education and is the past Chair of the ISWA YPG.

