

# THINK NORDIC COP16

**From Waste to Value, Driving  
Circular Economy and  
Biodiversity through  
Innovative Business Models**





Use the **#ThinkNordic**



# AGENDA



**7:30 am** Breakfast and registration

**8:00 am** Opening remarks by **Jens Godtfredsen**, Ambassador Embassy of Denmark in Colombia

**8:10 am** Keynote by **Katherine Ortegon** M. PhD, Managing Director Master in Sustainability Program at **Universidad ICESI**.

**8:25 am** Panel conversation with Nordic company experts moderated by **Katherine Ortegon**, Managing Director Master in Sustainability Program at **Universidad ICESI**.

Panelists:

- **Karin Klitgaard**, Underdirektør, **DI**
- **Sebastian Lopez**, Commercial Director, **Lamor**
- **Eva Axelsson**, Head of Group Sustainability, **SAAB**

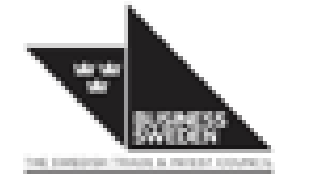
**9:10** Q&A

**9:30** Networking



# Solid Waste Impact on Biodiversity

## Circular Economy Solutions





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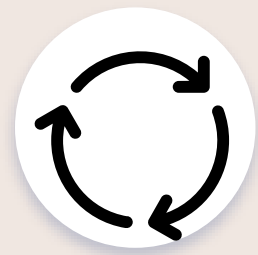
PhD Ecological Sciences & Engineering, Purdue University, IN, USA

Managing Director, Master in Sustainability Program  
Associate Professor, IE & Sustainability Department  
Universidad Icesi

Topics of interest: circular economy, life cycle engineering, bioenergy



# Two important definitions...



## Circular Economy

**Radical change** in the current production and consumption models, towards **regenerative systems** distinguishing between technical and biological cycles to maintain the **circularity of materials, utility and maximum value** throughout the entire supply chain, in order to preserve the natural capital, optimize the use of resources and **avoid the generation of waste** while minimizing negative externalities in the ecosystem and human health.

(Haas, Krausmann, Wiedenhofer, & Heinz, 2015) (Ellen MacArthur, 2015)  
(Moreno, 2018) (British Standard, 2017)

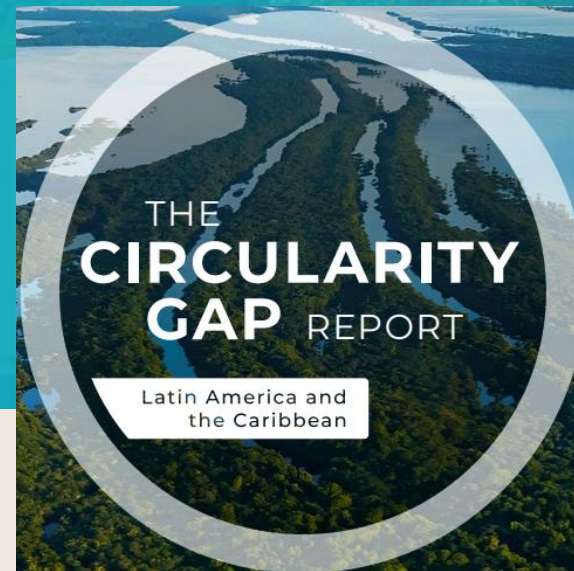


## Biodiversity

Biodiversity is the **vast array of life on Earth**. It is a boundless network of an undetermined number of species. An abundance of ecosystems provides us with **clean water, air, fertile soil, climate control, medicines, food, recreation, and inspiration**.

(World Economic Forum, 2024)

# Important facts



## Circular Economy Gap

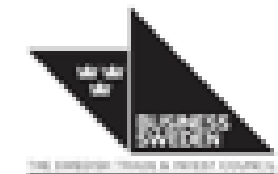
- Global CE gap has decreased from 9,1% in 2018 to 7,2% in 2023.
- Latam CE gap is less than 1%
- Ecological recycling potencial 40,7%

## Waste

- In 2020, the global MSW generation was 2,126,000 MTon
- Latam generation was 500 MTon (0,02%). Northern Europe (350MTon, 0,01%)
- Cali generates 668,290 Ton/yr

## Biodiversity Loss

- Global average decline 69% in species population
- Latam has 94% drop
- Causes: food pn, wood extraction and poor water management



# Circular Economy Principles

**01** Natural Capital

**02** Technologies for CE

**03** Systems Thinking

**04** Cascade Thinking

**05** Eco-efficiency

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**06** Innovation

**07** Impact Management

**08** Value optimization

**09** Local Thinking

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**10** Resilience for diversity

**11** Circularity and longevity

**12** Waste prevention design

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# Interconecction between Waste & Circular Economy & Biodiversity

The CE and **biodiversity** are interconnected, as sustainable resource management practices not only reduce **waste** but also enhance ecosystem health, thereby supporting the conservation of diverse species and habitats essential for **ecological balance**.

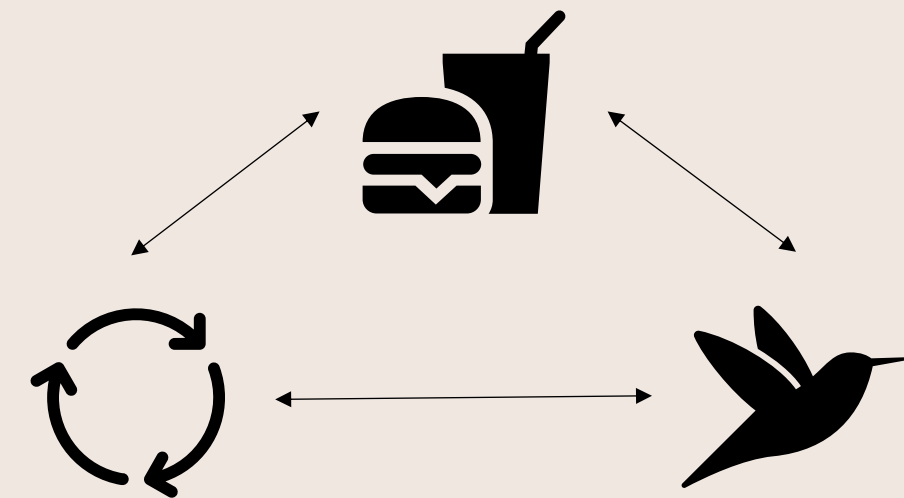


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# Impact of waste on biodiversity

# Habitat Disruption

Improper waste disposal leads to habitat destruction, significantly impacting local flora and fauna, and contributing to soil and water contamination that threatens ecosystem integrity.

## Colombia: actividades humanas alteran horarios y comportamientos de aves y mamíferos | ESTUDIO

DAVID TARAZONA

7 SEP 2023 AMÉRICA LATINA

Comentarios

Compartir a

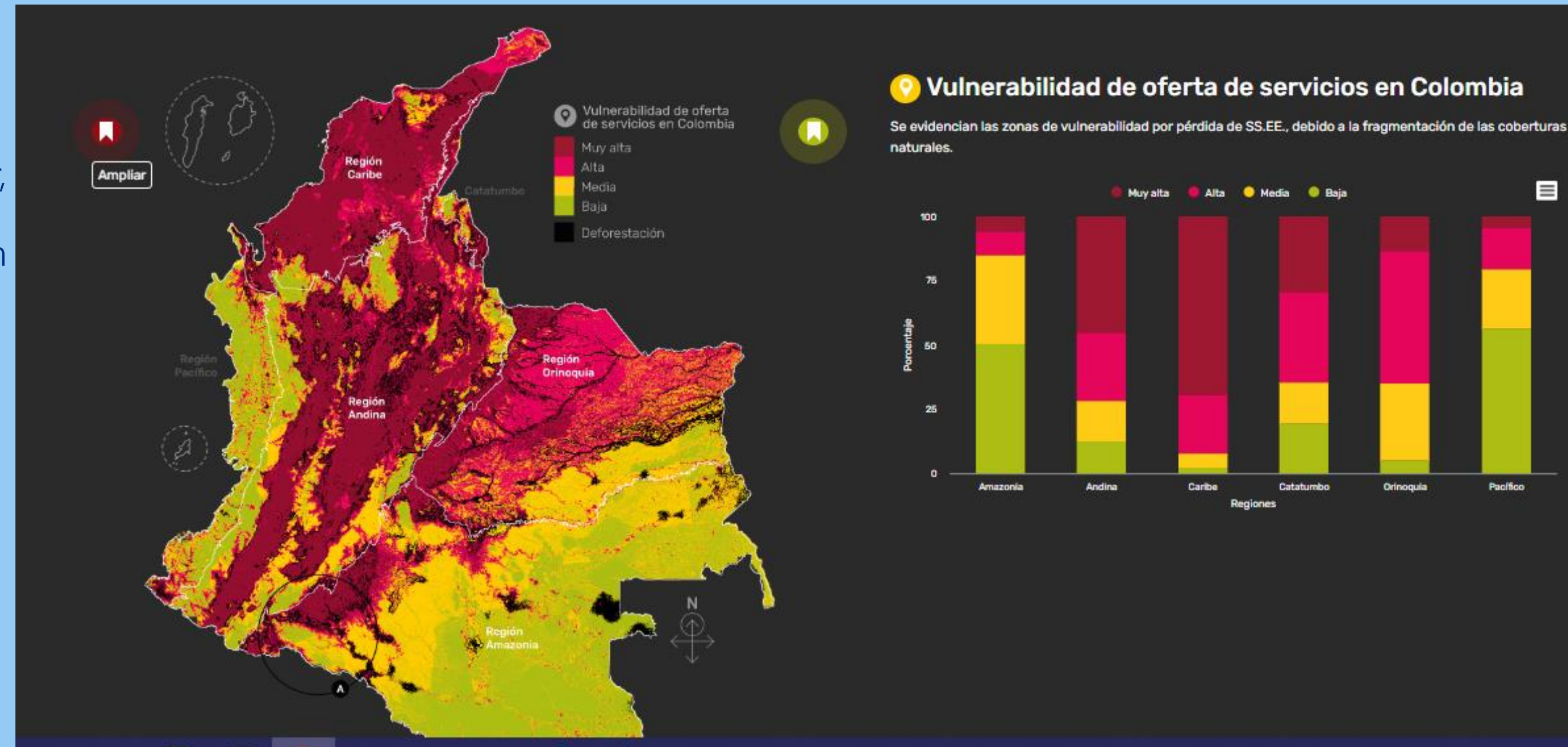


- Una reciente investigación científica encontró que la perturbación de los humanos en algunos ecosistemas provoca que múltiples especies de mamíferos se vuelvan más nocturnos y que algunas aves sean más diurnas.



# Ecosystem Services

Waste pollution compromises air, water, and soil quality, undermining essential ecosystem services such as clean water supply and nutrient cycling, which are vital for species survival.



Source: <http://reporte.humboldt.org.co/biodiversidad/2019/cap2/201/#seccion4>



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# Invasive Species Proliferation

Waste-affected areas often become breeding grounds for invasive species, which can outcompete native organisms, leading to shifts in ecosystem dynamics and further biodiversity loss.

The bullfrog is among the 100 most harmful invasive species on the planet, according to the Global Invasive Species Program (GISP). It competes for space and food with native species.

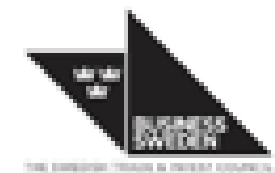


Source: <https://www.wwf.org.co/?374990/Por-que-las-especies-invasoras-amenazan-la-biodiversidad>





# Pathways to a Sustainable Future and Collaborative Efforts



# Collaborative Efforts



## Measuring the Impact of Circular Models on Biodiversity

Implementing a robust framework for assessing the impact of circular models on biodiversity involves **integrating ecological, economic, and social metrics**, enabling organizations to quantify their contributions to biodiversity preservation and identify areas for improvement through **systematic monitoring and reporting**.



## Policy Frameworks for Circular Initiatives

Effective policy frameworks must integrate circular economy principles into all levels of governance, ensuring that **regulations** not only **promote sustainable practices** but also **align with biodiversity conservation goals**, thereby fostering a holistic approach to environmental stewardship.



## Joint Research Initiatives

Collaborative research projects between **academia and industry** focus on developing **sustainable materials** and processes, enhancing **resource efficiency**, and promoting **innovative solutions** to environmental challenges



**Thanks.**

**[Kortegon@icesi.edu.co](mailto:Kortegon@icesi.edu.co)**





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# Our Panelists



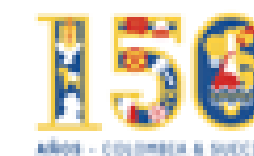
**Eva Axelsson**  
Sustainability Director  
Saab AB



**Sebastian Lopez**  
Commercial Coordinator  
Lamor Colombia



**Karin Klitgaard**  
Director Env. Policy and  
Circular Economy  
DK



# Eva Axelsson Sustainability Director SAAB



Eva Axelsson is the Chief Sustainability Officer and Head of Group Sustainability at the Swedish Defense and Security Company, Saab AB. Eva has over 20 years of experience in sustainable business, organisations and authorities, of which her last 8 years were in the finance industry before moving to Saab in May 2021 .

As CSO and Head of Group Sustainability at Saab AB, Eva leads and further develops the company's sustainability strategy, and the involvement and communication with regulators, institutions and sector organisations.

Over the years, Eva has developed organisations, people and methods to combine sustainability with good business in different industries. Outside of Saab, Eva is a board member at The International Institute for Industrial Environmental Economics (IIIEE). She has a Master of Science in Biology and Environmental Management and Economics from Stockholm University, after further studies at the universities of Uppsala and Melbourne.

# Sebastian Lopez Lamor Colombia



Petroleum Engineer from Universidad de América, Specialist in Oil&Gas Management, Master in Business Administration from EUDE Business School in Madrid, Spain. More than six years of experience in onshore and offshore oil&gas industry. Currently, Commercial Coordinator in Lamor Colombia, direct subsidiary of Lamor Corporation PLC. Lamor is a Finnish company that is a world leader in hydrocarbon spill response, equipment manufacturing for oil spill response, soil biorremediation and waste management with more than 40 yrs of international experience and presence in more than 104 countries.

# Karin Klitgaard

## Danish Industry



Director environmental policy and Circular Economy in Danish Industry since 2012. She has been working in the field more than 25 years. Danish Industry represents 20.000 companies in Denmark - and represents almost all sectors.

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**Katherine Ortegon**  
Managing Director Master in  
Sustainability Program



**Karin Klitgaard**  
Underdirektør



**Sebastian Lopez**  
Commercial Coordinator



**Eva Axelsson**  
Head of Group Sustainability





For more information visit:

[www.nordicscop16.com](http://www.nordicscop16.com)