Brussels, Belgium

Connecting Global Minds for Circularity

As part of the GIZ Circular Economy Week in Brussels 2024

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmbl



Hosted by **GIZ's Global Programmes**

Go Circular

on behalf of the German Federal Ministry of Economic **Cooperation and Development**

on behalf of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

On behalf of



Federal Ministry for Economic Cooperation and Development



On behalf of:



Federal Ministry for the Environment, Nature Conservation, **Nuclear Safety and Consumer Protection**

of the Federal Republic of Germany

Environmental Protection Worldwide





Countries represented in today's event

TE-

18 GIZ projects

Connecting Global Minds for Circularity

23 Countries

120 Participants ASIA China India Indonesia Jordan Malaysia Pakistan Thailand Vietnam

AFRICA

Egypt Ghana South Africa

EUROPE Belgium France Germany The Netherlands

LATIN AMERICA & The CARIBBEAN

Argentina Brazil Colombia Costa Rica Dominican Republic Guatemala Mexico St. Lucia



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International cooperation, partnerships and alliances imperative for a shift to Circular Economy



- Circular economy principles contribute to a large set of the UN's Sustainability Development Goals (SDG).
- International partnerships are imperative to align policies, share best practices and mobilize resources

 Circular economy promotes the efficient use and reuse of resources by addressing global challenges like environmental pollution, climate change, biodiversity loss and resource scarcity.

 Circular economy fosters sustainable economic growth by creating new business opportunities, promoting innovation and creating new job opportunities across international value chains.



Agenda

Time Topic

09:00 - 09:15 am Welcome

09:15 – 10:30 am Session 1: Circular Economy Finance

10:30 – 11:00 am Coffee break Q

11:00 – 12:30 pm Session 2: Cities as Drivers for Circularity

12:30 – 01:30 pm Lunch and networking \bigcirc

01:30 – 03:00 pm Session 3: Interactive Thematic Networking

03:00 – 03:30 pm Coffee break Q

03:30 – 04:50 pm Session 4: Impact of EU Circular Economy Policies on International Value Chains

04:50 – 05:15 pm Endnote

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Opening **Welcome Note**

Lars Selwig

German Federal Ministry for Economic **Cooperation and Development (BMZ)**

German Federal Ministry for the Environment, Nature Conservation, **Nuclear Safety and Consumer** Protection (BMUV)



Federal Ministry for Economic Cooperation and Development



Dr. Inga Wagner

Federal Ministry for the Environment, Nature Conservation, **Nuclear Safety and Consumer Protection**





Session 1 Circular Economy Finance





Global context of circular economy finance

Mauricio Vélez García

Asobancaria, Colombia

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Circular Economy for the banking sector

Mauricio Vélez, Head of Sustainability Banking Association of Colombia

April 2024, Brussels.



What does circular economy mean for people, planet and profits?

3

A global circular economy will allow us to fulfil people's needs with only 70% of the materials we now extract and use In 2023, recycled or secondary materials account 7.2% of all materials inputs into the economy. 2018: 9.1% 2020: 8.6%

2

Extracted materials have increased from 28,6 Gt in 1972 to 101.4 Gt in 2021. We could reduce it by one-third or it could reach 184 Gt in 2050

Source: https://www.circularity-gap.world/

Circular economy could have USD 4.5 trillion potential for economic growth by 2030 and USD 700 billion in consumer material savings

4



Circularity in banks



Sustainable or green financial products and services

- Credit portfolio: green loans, leasing or renting for circular projects, assets or activities, according to the green taxonomy.
- Circular criteria to design new financial products such as sustainability linked loans or bonds as well as circularity linked loans (mostly for large corporations), using KPIs such as food waste reduction, % of recycled materials / raw materials.
- Blended finance: rediscount credit lines or grants from development banks or public institutions to partially cover the risk for commercial banks and reduce the rate for borrowers, in specific destinations such as circular economy.



Circularity in banks



Risk management

- Analyze circular criteria through the Environmental and Social Risk Management (ESRM) system to check alignment with the global or national framework, such us the green taxonomy.
- As part of the credit risk process, banks can include circularity metrics such as extended producer responsibility (EPR), scarcity of materials, new regulations for use of resources \rightarrow mitigating the risk of default.
- Boosting circular finance by adding a circular lens to risk • management, for example, implementing a circular risk scorecard in the decision-making processes to define financial conditions in lending or specific covenants with clients.



SUSTAINABLE FINANCE GOALS (SFG)



10 REDUCED INEQUALITIES

 $\langle \equiv \rangle$

 $\overline{}$



TARGETS 2030

Aso Ban Caria





Finance for wellbeing



Finance for the planet









Green lending portfolio 2023: \$4 USD billion (3% of total portfolio) Goal 2030: \$35 USD billion (11%)

Sustainable lending portfolio 2023: \$18 USD billion





Number of financial institutions with green products and services



15 financial institutions in Colombia with green lending portfolio



Financing Program for circular economy



Financing Program for Circular Economy

Mapping sectors: Understanding circularity market in Colombia **Capacity building:** Green Business Workshops with financial institutions

Action and Monitoring Plan for financing Circular Economy

BASE

2022

2023





Development of Pilots/Prototypes for Financial Instruments in Circular Economy

2024 – 2025*



Financial institutions







Results



- Colombia has a National Circular Economy Strategy (ENEC) launched in June 2019. This is aligned with the National Green Business Plan 2022 - 2030 and the National Development Plan 2022 - 2026. This Plan has a goal of 12,630 verified green businesses, 150,000 new green and inclusive jobs, and \$2.1 billion COP by 2030.
- Major lines of action: flows of industrial and mass consumption materials, biomass, energy sources, water and construction materials.
- Criteria for Circular Economy Projects. Bancolombia: Waste management, Circular models, Extension of life product, Products as a service, Platform models. Bancóldex: Waste recovery, Reduction in the use of natural resources, Recycling.



What would happen to the Colombian economy and GHGs if policies and actions for the Circular Economy are promoted?

By 2030, Colombian GDP would be higher by 3.27%.

Colombia: percentage effect of the circular economy on GDP

3,5% 0.0% 3.27% 0.00% 3,0% -0,5% 2,60% -0.67% 2.5% -1,0% 2,00% -1,5% 2.0% 1.46% -2,0% 1.5% 1.00% -2,5% 1.0% 0.62% -3,0% 0.5% 0.32%0,11% 0.00% 0.00% -3.5% 0,0% 2021 2022 20212022 2023 2024 2025 2026 2027 2028 2029 2030 Source: CEPAL, 2023

By: Modeling the macroeconomic effects of the transition to the circular economy in Latin America (CEPAL, 2023)

Percentage effect of the circular economy on emissions in 2030 in Colombia



Source: CEPAL, 2023



Bank	Bancóldex	
Type of Bank	Commercial	C
Types of projects funded	Circular Economy, Energy Efficiency and Transition and Bioeconomy.	E p a s
Criteria to be financed	 Waste recovery. Reuse of materials. Reduction in the use of natural resources. Recycling. 	• • •
Target Customer	micro (34%), small (17%), medium (43%) and large (6%) companies.	Ν
Financial Product	 Line of credit under the rediscount and microfinance mechanism 	L

Bancolombia

Development

Energy efficiency, renewable energy, cleaner production, sustainable mobility, sustainable agriculture and livestock, sustainable, sustainable construction-

- Waste management.
- Circular Models.
- Extension of useful life.
- Products as a service.
- Platform Models.

Mostly medium and large companies

ending



Colombian Green Taxonomy - Circular Economy



Energy Sector:

- EGE3. Electricity generation from wind energy.
- EGE7. Electricity generation from biomass, biofuels and biogas.
- EP8. Low-carbon hydrogen production.

Assets and activities with their eligibility criteria in circular economy issues of Colombia's green taxonomy.



Construction sector:

• C1. New buildings



Manufacturing Sector

• M7. Components involved in the manufacture of plastics in primary form.



Colombian Green Taxonomy - Circular Economy

Waste Management and Emissions Capture Sector:

• RC2. Separate collection and transportation of non-hazardous waste in the source-segregated fraction. • RC6. Energy production from non-recyclable waste fractions (thermal treatments).

• RC8. Artificial capture, transport and storage/use of GEI

Assets and activities with their eligibility criteria in circular economy issues of Colombia's green taxonomy.



Transportation sector:

• T3. Transportation infrastructure.



Water supply and treatment sector:

• A2. Sanitary and combined sewer systems and combined.

• A3. Wastewater treatment systems.



Thank you!

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Measures and Activities in Europe

Bettina Dorendorf

KfW, Germany

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"Circular Economy Finance: Measures & Activities in Europe"

World Circular Economy Forum 2024 Accelerator Session Brussels 18 April 2024

Bettina Dorendorf Senior Sustainability Manager, KfW (Germany)

KfW at a glance

	Germany's flagship development agency	Professionally supervised and regulated	Ra	atings
•	The promotional bank of the Germany, established in 19	e Federal Republic of 48 as a public law institution.	Rating	Agency
•	Benefits from explicit and d	irect statutory guarantee and	AAA	Moody's
•	Regulated by the "Law con	cerning KfW" and exempt from	AAA	Scope
	corporate taxes.		ΑΑΑ	S&P
•	Zero risk weighting of KfW's standardized approach of the standardized app	s bonds according to the he Capital Requirements	Rating	Agency
	Regulation (CRR)		Prime	ISS ESG
•	Supervision by the German and the German Financial S	Federal Ministry of Finance Supervisory Authority "BaFin".	AAA	MSCI
•	Subject to certain provision bank regulatory laws by and from January 1, 2016.	s of German and European alogy, in large part with effect	Advanced	Moody's ESG Solutions

independently of any other rating.

KFW

uarters: Frankfurt am Main es: Berlin, Bonn









the assigning rating organization. Each rating should be evaluated



New business



KfW C New bus

KfW / Alex Habermehl

KfW Group 2023 New business at pre-COVID levels



Joint Initiative on Circular Economy

Background, objectives and activities

- 6 large European Promotional Banks (EIB, KfW, BGK, CDP, CPP, ICO)
- Main motivation: enable market development and growth of a circular economy

• Activities & Results 2019 – 2023

- EUR 10 bn+ finance for circular economy
- Strengthening awareness & visibility
- Supporting classification of Circular Economy activities - the "9 R" principle
- \circ Knowledge building
 - Webinars showcasing & promoting circular economy business models in key sectors (textile, cities & regions, buildings)



KFW



Regulatory activities and sustainable finance

Dynamic regulatory activities 2019 to date

- 2020 CE Action Plan
- Recent: Regulation Eco Design and Batteries; Right to Repair
- \circ ... but limited growth of circularity rate: 11.4% to 11.8% (2025-2021, Eurostat)

Expanding sources of finance for Circular Economy

 ...but private investors & dedicated funds/bonds still at small scale!

European sustainable finance agenda

- creating spotlight on Circular Economy
- EU Taxonomy Regulation 6 environmental objectives
 - > Circular Economy forming part of the six environmental objectives of the EU Taxonomy

KFW

EU Taxonomy: 6 environmental objectives

1- Climate change mitigation

2- Climate change adaptation

3- Sustainable use & protection of water & marine resources

4- Transition to a circular economy**

5- Pollution prevention & control

6- Protection & restoration of biodiversity & ecosystems

** Delegated Act defining 35 economic activities & technical screening criterie /DSNH-criteria;

EU Taxonomy: defining ecological sustainability



Reporting standard for Circular Economy: part of new sustainability reporting

<u>Corporate Sustainability Reporting Directive (CSRD)</u> - new are of reporting

- CSRS reporting: based on new complex European Sustainability Reporting Standards (ESRS):
- Enlarged scope of application (50.000 Europ. companies)
- Sustainability reporting: part of the management report -> subject to audit
- Comprehensive & standardised reporting
 requirements based on double materiality assessment

Structure of the
Environmental
Climate change (E1)
Pollution (E2)
Water & marine Ressources (E3)
Biodiversity & ecosystems (E4)
Resource use & circular economy (E5)

European Sustainability Reporting Standards (ESRS)

Social	Governance	Cross Cutting
Own workforce (S1) Workers in the	Governance, risk management & internal control (G1) Workers in the value chain (G1)	General principles General strategy,
Affected communities (S3) Consumers and		governance & materiality assessment disclosures requirements
end users (S4)		

Source: KfW

Conclusions & lessons learnt

• Knowledge building, co-operation & advisory:

- key to foster understanding of circular value chains and implementation of business models
- $\circ\,$ Need to define sector specific funding gaps
- **Connecting** public and private funding sources: leverage
- Bringing together business models and finance providers
- Standardisation: need to work on consistent data & metrics



Back-up



Structure of the EU Taxonomy

The Basics

How does the EU Taxonomy work

Step 1: Regulation (EU) 2020/852, 18.6.2020) providing the framework; defining six environmental objectives to which an economic activity has to contribute

Step 2: Delegated Acts defining the specific criteria to be met



<u>Step 3</u>: Identification of economic activities contributing to the environmental objectives ; definition of Erarbeitung der technical screning criterie by the platform SF as a proposal-> consultation -> decision-> binding through adoptoin of EC Delegated Acts

Schritt 4: Revision / Changes made by EU COM (after market consultation), Binding character of screening via Delegated Act of EU Commission (procedure established via Taxo-Regulation).

lot	Technical criteria 21.4.2021 New Economic activities DA 13.6.2023	Start reporting 2022 for FY 2021 2024 f. FY2023: taxo eligibility 2025 f. FY 2024; compliance (banks: 1 year later)
ct nt"	Publication screening criteria 13.6.2023 (application staring 2024)	Reporting by corporates 2024 For FY 2023 (Taxo- eligibility) 2025 f. FY 2024: also Taxonomy- alignment Banks FY 2023/2024 only Taxo-eligibility

Environmental objective 4

Transition to a circular economy

21 activities on the transition to a circular economy / 5 sectors

1. Manufacturing

- 1.1. Manufacture of plastic packaging goods
- 1.2. Manufacture of electrical and electronic equipment

2. Water supply, sewerage, waste management and remediation activities

- 2.1. Phosphorus recovery from wastewater
- 2.2. Production of alternative water resources for purposes other than human consumption
- 2.3. Collection and transport of hazardous waste
- 2.4. Treatment of hazardous waste
- 2.5. Recovery of bio-waste by anaerobic digestion or composting
- 2.6. Depollution and dismantling of end-of-life products
- 2.7. Sorting and material recovery of non-hazardous wastes

3. Construction and real estate activities

- 3.1. Construction of new buildings 3.2. Renovation of existing buildings 3.3. Demolition and wrecking of buildings and other structures 3.4. Maintenance of roads and motorways 3.5. Use of concrete in civil engineering

4. Information and communication

4.1. Provision of IT/OT data-driven solutions and software

5. Services

- 5.1. Repair, refurbishment and remanufacturing
- 5.2. Sale of spare parts
- 5.3. Preparation for re-use of end-of-life products and product components
- 5.4. Preparation for re-use of end-of-life products and product components
- 5.5. Product-as-a-service and other circular use- and result-oriented service models
- 5.6. Marketplace for the trade of second-hand goods for reuse
Viet Nam's Green Taxonomy, with a focus on Circular Economy

Tran Quoc Trung

Ministry of Planning and Investment, Vietnam

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VIETNAM GREEN TAXONOMY WITH THE FOCUS ON CIRCULAR ECONOMY

Brussels, 18/04/2024

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VIET NAM GREEN TAXONOMY (VGT)

1. VGT drafted by MPI and submit to Prime Minister for approval for 2 steps: (i) Clarification system of green sectors in Vietnam statistical indicator system (VSIS); (ii) National criteria framework for green taxonomy

- 2. Methodology:
 - Covers the entire economy including 15 green fields, 80 green economy sectors
 - Closely linked to the Vietnam Economic Sector System, compatible with the measurement and reporting system (MRV), in harmony with international and domestic standards and criteria (MONRE, MOST, ...)
 - Consistent with VSIS (clarified green sectors)
- 3. **Scope:** Nationwide



VGT vs FINANCIAL MOBILIZATION FOR CIRCULAR ECONOMY

- VGT is a basis for developing policies and incentive mechanisms for financial resource mobilization (projects and economic activities that meet green standards, creating favorable conditions to attract investment.)

- Ministries will develop sectoral sets of technical criteria based on VGT to classify green projects according to each industry/field as a basis for providing legal mechanisms and incentives for green industries.

- Green Taxonomy for access green bond and green credit drafted by MONRE with criteria environmental perspective-oriented criteria (developed in 2022 funded by GIZ).

- Circular Economy criteria developing by MPI links closely to VGT and references EU criteria (funded by GIZ) for the purpose of project based financial mobilization (incentives, investment policies and mechanism, access fund, commercial and concessional loans from commercial banks or financial institutions...).

GIZ GO CIRCULAR SUPPORT TO MPI IN CE FINANCE

Developing **CE Criteria to assess CE projects in Vietnam** Funders mapping and guidelines on how to access different financing sources

- Surveys on CE SMEs and funders in - 5-6 core CE Criteria based on the CE ISO, EU Vietnam Green Taxonomy and international practices
- Funders mapping with their funding criteria
- Guideline on financing CE
- Training for SMEs and banking sector
- One-by-one consultancy upon SMEs' request

- Surveys and pilot application before official

issuance under an MPI's decision



Thank you!

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Portugal: Financial needs, challenges, and opportunities of **CE organisations**

Clara Garcia Parra

The Canopy Lab

Connecting Global Minds for Circularity





QIZ

April 2024

Circular Economy Financing Survey





Participant characteristics: broad participation, including CE SMEs from LMICs



*There were no respondents representing Oceania.

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Current financing sources: a perceived inability to tap into external funding

"While there is enough money, this money is too focused on some topics. Circular economy is a very broad topic, and most funding goes towards a very narrow set of opportunities" KII participant 30.6% Prefer not to say Yes No

Private sector respondents



Looking ahead: funding is needed, but organisations anticipate that it will be hard to obtain it

Are you planning to seek additional financing/funding for your CE initiatives within the next 12-18 months?



What sources of funding/financing are you most interested in exploring?

	Academia/Research	Civil society	Private sector
Grants	85.7%	61.7%	59.1%
Equity investment			18.9%
DFI loans			
Other			
Commercial bank loans extended to an organisation			
Debt from NBFCs			
Borrowing from friends and family			



Together for a Circular Economy

Reach out to us at: contact@preventwaste.net





Panel Discussion

Andrew Brown

Organisation for Economic Co-operation and Development (OECD)

Bettina Dorendorf KfW

Enrique Cueva Vytal Mexico

Tran Quoc Trung Ministry of Planning and Investment (MPI), Vietnam











Check out GIZ's work on Financing Circular Economy

GIZ Report "Financing CE – Insights for Practitioners"

including a Country Analysis of Colombia, Dominican Republic, Viet Nam, Albania and Rwanda

Available in English, Vietnamese, and now also in Spanish!





Financing Circular Economy – Insights for Practitioners (giz.de)





Connecting Global Minds for Circularity

Newly released Spanish version, with country case studies of Colombia and the Dominican Republic

Let's take a



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Coffee & Tea Break

10:30 - 11:00



Shifting circular: Urban infrastructure and policy changes towards renewed territorial metabolisms

A comparative analysis of the Paris, Hamburg, Amsterdam and Brussels metropolises



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Find the research on the GreenTechKnowledgeHub:

230616_Studie-Shifting-Circular_GIZU.pdf (greentechknowledgehub.de)





Session 2 Cities as Drivers for Circularity

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmb

HAMBURG



BRUSSELS

Belgium

Perrine Collin



perspective Nguyen Minh Cuong





BANGKOK Thailand Dr. Sujitra Vassanadumrongdee

COLOMBIA National perspective Ruth Quevedo

TURRIALBA Costa Rica Carlos Cordero Vega

Urban policies and infrastructures for the resource transition, or the complex governance of critical dilemmas

Hugo d'Assenza-David

Sciences Po Paris | The French Agency for Ecological Transition (ADEME) PhD Researcher | Policy Analyst

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Cities as Drivers for Circularity Breakout Sessions

BIG VENUE

Round 1: COLUMBIA & BRUSSELS

Round 2: VIET NAM & HAMBURG

THE ORANGERY

Round 1: BANGKOK

Round 2: TURRIALBA





Bangkok Metropolitan Administration's waste management and circular economy strategies: key achievements and challenges

Dr. Sujitra Vassanadumrongdee

Senior Researcher at Environmental Research Institute, Chulalongkorn University, Thailand

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Outline of presentation

- 1. BMA's waste situation
- 2. Current policy and plan on solid waste management
 - Action plan on waste management at source
- 3. Public-private partnerships
- 4. Overview of on-going projects and activities
- 5. ERIC-led project supported by the ThaiHealth
- 6. GIZ-CAP SEA project
- 7. Key achievements and challenges



BMA's waste situation



Annual waste collected volume in Bangkok (ton)

- in 2023.

Most trash in Bangkok lack of sorting at source with a common excuse that it is meaningless to sort as BMA put everything in one truck anyway.



BMA's waste composition in 2023







• In 2023, the number of inhabitants in Bangkok Metropolitan Area, is estimated to amount to around 11.07 million people • The number of international visitors in Bangkok reached 25.8 million visitors

Solid waste is collected in one truck though waste collectors have sorted recyclables as their extra earning



Littering & fly tipping into

Mixed waste is loaded at On-nut

Most collected waste is sent to landfills in other provinces, some is sent to a small incinerator. Two big incinerators will be built in 2024.



On-nut Transfer **Station** 3,000 tons/day

Current policy and plan on solid waste management

BMA Governor: Dr.Chadchart Sittipunt



Advisor to BMA Governor & Chief Sustainability Officer (CSO): Mr. Pornphrom





- 1. Creating waste sorting models and developing comprehensive waste sorting at the district Level
- 2.Good urban environment, proper drop-off points for general waste, No uncollected waste
- 3. Focus on targeted separation of organic waste at the source
- 4. Small-sized garbage trucks that access every household
- 5. Return waste to the system (drop-off points, waste banks)
- 6. Development of prototype **BKK Food Bank**, concretely delivering food to vulnerable groups

(Good health policy)

Clean, safe and free drinking water city-wide



Public-private partnerships

Various groups of CSOs and companies working with BMA on waste management towards CE

30 June 2022: CSOs led by ERIC met BMA Governor to deliver the draft Action Plan on Sustainable Waste Management



วัมศุกร์ที่ 5 เมษายน 2567 เวลา 5.00 – 12.00 น. ณ ห้องขากกอก อาศารโลราวัชพัฒนา ศาลาว่าการกรุงเทพขหานคร อินแดง









Action plan on waste management at source



A dedicated truck for food waste collection 1 truck/district only (need to invest more)

Overview of on-going projects and activities

Reduce

Work with CSOs on water refill stations & single-use plastics reduction initiatives

Declaration of Intention to reduce the use of single-use plastics in BMA's offices & affiliations



Redistribution surplus food

BKK Food Bank Centers at district offices (rescue food waste and help the poor) in cooperation with SOS





sorting with limited

Pilot districts on zero-waste organizations

Zero-waste schools

points



BMA's own projects & cooperation with private sector and civil society organizations (CSO)

Recycle

- Campaign on food waste separated collection routes
- Work with PPP Plastics and CSOs on recyclables drop-off

Clean-up

-Terracycle Thai Foundation's Clean up at Lad Phrao Canal -Ocean Cleanup (Mar 2024) Chao Praya River



Incentive mechanisms

2

Awards for zero-waste organizations (18 types of waste generators targeting shopping malls)

1



Increasing waste collection and disposal fees

by weights/volume (non-households) or by segregation efforts (households) to be announced by September, effective next year



Organizations:

The fee rate will be increased 3 times and increased by volume (PAYT) \rightarrow incentivize waste reduction & segregation

Households:

Mixed waste household: 60 THB/month Waste sorting household (register via BKK Waste Pay App): 20 THB/month

3

Drafting a local ordinance on mandatory waste segregation (with separate collection systems)



(very important but less priority)

BKK Zero-Waste Initiative (Implemented by ERIC and alliance, financed by the ThaiHealth)

Activity 1

Data platform, website & waste segregation guides







Activity 2

- Supporting 84 organizations in two pilot districts to reduce and segregate waste at source (Pathumwan & Non Kham Districts)
- Promote separate collection
 systems for food waste and RDF





Activity 3



Pilot Black Soldier Fly (BSF) larvae farming to eliminate food waste (capacity 1-2 tons/day) at Nong Kham Transfer Station





Increasing waste collectors and drop-off points







Trash Lucky

60 จุดทั่วกทม.และปริมณฑล



<u>Attps://bit.ly/tldropoffs</u>







Drop-off points & smart recycling hubs by PPP Plastics



A feasibility study on a material recovery facility (MRF) at Nong Kham Transfer Station





Results



In one year, waste reduction would help BMA saving the waste disposal cost amount 141 million THB

Note: 1 ตัน = 1,900 บาท ค่าเก็บอน 1.200 บาท ค่ากำจัด 700 บาท

CAP-SEA project activities

as part of the GIZ global project "Environmental Protection Worldwide" on behalf of the German Federal Ministry for the Environment and Consumer Protection



The city of Bangkok has ambitious environmental goals, including waste reduction. Therefore, the Bangkok city administration is highly interested in collaborating with CAP SEA as part of the BMUV Export Initiative Environmental Protection (EXI) project to develop approaches for avoiding single-use plastics.



The EXI project will create a guide for avoiding single-use plastics through local reusable and/or deposit systems at the community level.



Furthermore, the EXI project will support the introduction of water refill systems in Bangkok by **providing recommendations** for the deployment and maintenance of such refill systems.





Attps://www.exportinitiative-umweltschutz.de/en/projects/giz-cap-sea-2

Refill Bangkok Network led by EJF and BMA


Key achievements and challenges

- **1.** BMA's waste management in transition–from cleanliness & disposal to sustainable waste management & CE
- 2. During the past 2 years, the total amount of residual waste has slightly declined due to various waste segregation campaigns ('No Mixed Waste') with support from private sector and CSOs.
- 3. So far BMA has focused mostly on waste segregation for recycling, more work to be done on waste reduction especially single-use plastics.
- 4. Need more investment on separate collection systems, reallocation of manpower from street sweepers to campaigners on waste segregation.
- 5. BMA need to work closely with CSOs and companies to advocate for waste reduction and segregation at source.
- 6. Try to incentivize households and organizations to reduce waste by increasing waste collection and disposal fees
- 7. Need strong political wills on mandatory waste sorting and improve governance.

Brussels: Insights from Brussels' circular reindustrialization

Perrine Collin

Coordinator of regional FabLabs, citydev.brussels, Belgium

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The role of Colombian cities from a national perspective

Ruth Quevedo

Executive Director of the Colombian Drinking Water and Basic Sanitation Regulatory Commission, Colombia

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The role of colombian cities in the transition to Circular Economy

Opportunities and challenges for one fair model

Executive Director Ruth Maritza Quevedo Fique

www.cra.gov.co









www.cra.gov.co



KEY FACTS



Colombia's population is made of 48 million up people, 85% of whom live in urban areas and municipal capitals, and 15% in rural areas.



CENSO NACIONAL DE POBLACIÓN Y VIVIENDA 2018-COLOMBIA

RESULTADOS COLOMBIA TOTAL NACIONAL

¿CUÁNTOS SOMOS?

2018 / Población

Personas censadas en hogares particulares 43.835.324

Personas en Lugares Especiales de Alojamiento (LEA) 329.093

44.164.417

de personas efectivamente censadas

8,5% del total de personas en hogares particulares de personas omitidas

Estimación preliminar de 48.258.494 DE PERSONAS



Por cada 100 hombres hay 104,7 mujeres



Por cada 100 mujeres hay 95,5 hombres



ALFABETISMO: LEER Y ESCRIBIR



¿DÓNDE ESTAMOS?

DISTRIBUCIÓN DE LA POBLACIÓN POR UBICACIÓN









The summary of the political-administrative division is: 32 departments, 1,101 municipalities, 20 non-municipalized areas.



ANNUAL PRODUCTION IN TONS PER CITY

Population Census-2018

Cartagena	470.000
Bogotá	2.239.000
Barranquilla	539.000
Bucaramanga	192.000
Cali	630.000
Medellín	680.000
San José de Cúcuta	250.000
Soacha	174.000
Soledad	210.000
Villavicencio	157.000



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<mark>R CITY</mark> າsus-2018



Maracaibo Puerto España Venezuela Georgetown Paramaribo uvana Guayana olombia Francesa Manaos Activar



SMALL MUNICIPALITIES





LARGE MUNICIPALITIES



Colombia has the sixth largest water reserves in the world

In 2020, the domestic sector's water demand was only 8.8% of the total.

Tariffs only cover 16% of investment and operating costs

8.3 billion pesos are required to achieve68.6% wastewater treatment rate

By 2020, only 52.02% of the total wastewater produced was treated.





In 2022, there were 11.7 million subscribers to the water supply system



In 2022, there were 10.7 million sewerage subscribers available.



In 2022, there were 340 million m3 of water consumed.



There are 207 urban centers vulnerable to shortages during the dry season



There are 254 urban headwaters vulnerable to water shortages during the rainy season.





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National Development Plan 2022-2026 **Pillars**



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Environmental justice and inclusive governance

Democratization of knowledge and information. **Capacities of local governments and communities** to make land use and territorial planning decisions.

Reduce regional gaps and territorial focus

Recognize territorial diversity, differences in needs and service delivery capabilities at the regional level.

Productive transformation

Modernize the vision and mission of sanitation services with an environmental service perspective. Integrate all service flows in their management and financing / Include the popular economy in reindustrialization processes.



Article 227 – Zero Waste Program

Article 227 – Zero Waste Program: "The Zero Waste Program, headed by the Ministry of Housing, City and Territory, shall be created within a maximum term of 1 year from the entry into force of this law, which will articulate the instances of the national government, territorial entities, public utilities and civil society; it will guarantee the participation of the recycling population and their organizations, promoting their inclusion and socioeconomic insertion; It will determine the regulatory, supervision and control aspects, and the investments required to advance in the <u>elimination of landfilling</u> towards the implementation of technological and environmental parks, waste treatment and valorization, promotion of technological development, environmental conservation and climate change mitigation; it will define a strategic plan for the definitive closure of open dumps and transitory cells, promoting solutions that prioritize the treatment and use of waste; and itwill promote the circular economy".





COMPETENCES OF THE MUNICIPALITIES

Ensure the efficient provision of the service, by public utilities of official, private or mixed nature, or directly by the central administration of the municipality.



Define the areas for the location of sorting and utilization stations, utilization plants, waste disposal sites and transfer stations.

Implement and put into practice the efficient use and reuse of water and the zero waste policy.











Bets for local and regional authorities

Incorporate the circular economy approach in development plans.

PGIRS que avancen en la circularidad de residuos

Strengthen and promote community solutions for water and sanitation management.





Closing gaps in rural and hard-to-reach areas.

Promote municipal associativity

Incorporating the popular economy into water and sanitation management





MUCHAS GRACIAS POR SU ATENCIÓN



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Circular economy in Viet Nam: from legal framework perspective to practical implementation at the city level

Nguyen Minh Cuong

Deputy Director at the Division of Domestic Waste, Pollution Control Department at the Ministry of Natural Resources and Environment, Viet Nam





Legal framework for CE in Vietnam

1. Introduction to Circular Economy in Vietnam

- > **Definition**: Circular economy focuses on reducing raw materials, extending product life cycles, and minimizing waste generation.
- > Legal Framework: The 2020 Law on Environmental Protection mandates the integration of circular economy principles into development strategies and waste management.

2. Key Objectives of the Circular Economy Scheme (2022)

- ✓ Reduce greenhouse gas emissions intensity by 15% by 2030, supporting net-zero emissions by 2050.
- \checkmark Aim to reuse, recycle, and treat 85% of plastic waste by 2025.
- \checkmark Target to treat 50% of municipal solid waste according to circular economy standards by 2030.

Legal framework for CE in Vietnam

- **3.** Policy Tools to Promote Circular Economy Adoption
 - Command and control measures: Bans, restrictions, environmental permits, and sanctions.
 - *Economic instruments*: Taxes, fees, subsidies, and waste reduction allowances.
 - Public education and persuasion campaigns.

4. Principles for Waste Management

- Extended producer responsibility: Manufacturers and importers must recycle or contribute to recycling funds.
- Utilization of waste as raw materials or fuels if meeting quality standards.
- Charging for waste collection based on volume and type, exempting recyclable and hazardous waste.

Legal framework for CE in Vietnam







Practical implementation at the city level Success Stories and Opportunities in Can Gio

District, Ho Chi Minh City

ONG YANH HANG GIO

Project "Promoting the Circular Economy 0 of Plastic Waste in Can Gio District" Implemented by Green Development Support Center (GreenHub) and Can Gio District People's Committee (2022 – 2023) Supported by The Coca-Cola Foundation

> Can Gio District Overview

- ✓ Coastal suburban district of Ho Chi Minh City
- ✓ Area: 704 km², Population: 71,526
- ✓ Home to Can Gio Mangrove Forest, UNESCO **Biosphere Reserve**



Success Story 1: Establishment of Stable Connection

- Addressing Plastic Waste Challenge in Can Gio:
 - 15,000 tons/year with 7-8% annual increase; only 15% recycled
- Circular Economy Model Implementation:
 - Establishing connections between waste collectors, warehouses, and recycling plants
- > Impact:
 - Stabilized shipments, recycled over 62 tons of plastic waste





Success Story 2: Improving Collection Efficiency

- Support for Small Waste Warehouses: Ms. Nguyen Thi Chau and Ms. Le Thi Chinh
- Provision of New Collection Carts
- Results: Increased waste collection capacity, sustainable livelihoods



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Success Story 3: Empowering Women

Green Garment Team:

- Utilizing materials from billboards and scrap fabric
- Production of eco-friendly products, market sales, brand development
- > Women-led Waste Collection **Campaign**:
 - Contest to promote recycling, community engagement







Success Story 4:

Alternative Solutions for Organic Waste

- Advanced Training on Waste Classification and Recycling:
 - Composting, making bio-cleaning agents
- Household-Level Implementation:
 - Training and provision of composting tools
- Result: Community engagement, organic waste recycling





Success Story 5: Sustainable Tourism and Mangrove Conservation

- Waste Management in Vam Sat Tourist Area:
 - Trash can design, strategic placement, awareness campaigns
- Role of Tourists in Environmental Conservation:
 - Active participation in waste management, sustainable tourism culture





Success Story 6: Environmental Education

- GreenTalk Competition and Training Programs:
 - Theme: "Green schools recycle plastic waste"
 - Aim: Raise awareness, promote waste segregation and circular economy
- School-Level Initiatives:
 - Environmental clubs, child propagandists, slogan promotion
- Result: Enhanced understanding, advocacy for sustainable practices



Opportunities

- **Global Waste Management Outlook (2024)**
 - MSW increase from 2.3 billion tonnes (2023) to 3.8 billion tonnes (2050). Ο
 - Direct cost in 2020: Estimated USD 252 billion or USD 361 billion w/hidden costs consideration \bigcirc (pollution, health, climate change)
 - Without intervention, double to USD 640.3 billion per annum by 2050. Ο
 - Potential savings: Implementing waste prevention and management measures could limit costs to Ο USD 270.2 billion by 2050.
 - Circular economy impact: adoption of circular economy principles could result in a **net gain of USD** Ο 108.5 billion per year.

Solid Waste Management in Vietnam

- MSW in Vietnam (2023): 24.5 million tonnes, projected to ~30.7 million tonnes in 2050 (Landfills: 64%; Waste-to-energy incinerators: 10.25%; Normal incinerators: 9.6%; Composting plants: 16.15%.)
- Funding: State funds: USD 481 million ~ 0.23% of GDP, lower than the global average of 0.5%. Investment needs: Doubling investment (~USD 1 billion) in waste management sector required for proper and environmentally sound management.
- Alternatives: Implement waste prevention and management measures, adopt circular economy models.
- Opportunities: good practices and success stories indicate potential for circular economy adoption in Vietnam (net gain from USD 16 million to USD 30 million annually until 2050).

What's next?



INFRASTRUCTURE, SCIENCE & TECHNOLOGY & DIGITAL TRANSFORMATION

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Thank you very much for you attention!

Questions/suggestion?

Please contact: Mr. Nguyen Minh Cuong Email: <u>nmcuong@monre.gov.vn</u> Whatsapp, Viber: +84903406458

Connecting Global Minds for Circularity

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Efforts on Circular Economy and Public Policy: Turrialba City Case

Carlos Cordero Vega

Director of Secretariat of Planning for Environment and Energy Sector of Ministry of Environment and Energy, Costa Rica





Turrialba



Area	
• Total	56.1 km ² (21.7 sq mi)
Elevation	646 m (2,119 ft)
Population (2011)	
• Total	26,680
• Density	480/km ² (1,200/sq mi)







Step by step guide for Circular Economy in Local Governments



Step by step guide for Circular Economy in Local Governments

- 1. Definition of Circular Economy in the context of local governments.
- 2. Benefits from Circular Economy.
- 3. Beneficiaries of Circular Economy.
- 4. Succes factors.
- 5. Barriers identification (the challenges).

6. Implementation: A general description, indicating the expected result of it, a detailed description of the activities, the resulting final product, examples of how the activity has been approached in previous experiences, tools that can be used to facilitate the execution, and It is important to highlight that Only those tools that are specific to CE are presented.



Another efforts in Public Policy

Solid Waste Management Plan and



Plan Municipal de Gestión Integral de Residuos Sólidos del cantón de Turrialba

2021-2026





Programa Regional Seguridad Energética y Cambio Climático América Latina (EKLA)

Roadmap towards an Circular Economy in Turrialba:




Implementation



Fuente: Elaboración propia.

Figura 9: Comparación de emisiones en la situación base y con el proyecto de planta de compostaje Fuente: Elaboración propia.

Potencial de caleamiento global	Reducción de emisiones en 20
años (ton CO₂e)	
A 100 años (GWP = 28)	11.489
A 20 años (GWP = 81)	39.458

Solid waste transfer station



Figura 7: Ejemplos de sistemas de aireación forzada. Fuente: The Composting Handbook (Rynk, 2022).



Figura 8: Ejemplos de galpón considerado en el diseño.

Componente:

Predio (Superficie Total)

Planta de Separación y RDF

Plasma

Digestión Anaerobia







Hamburg: Produce locally, think globally

Wolf Kuehr

Independent Circularity Consultant, Germany

Connecting Global Minds for Circularity



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Audience Interaction

What was your highlight from the city discussion in one word?





Bending the Linear Economy **On Urban Metabolism**

#resources #well-being #policies



URBAN METABOLISM

Bending the Linear Economy: On urban Metabolism

Find the publication here:

INTERSECTING on Bending the linear economy | Knowledge Hub for Green Technologies (greentechknowledgehub.de)





Lunch Break 12:30 – 13:30

Connecting Globi Minds for Circularity





Session 3 Thematic Networking



Themes

- 1) Extended Producer Responsibility (EPR)
- 2) Digitisation & Innovation
- 3) Behavioural Change & Waste Prevention



Theme Cards



Le BOUCHE à OREILLE



1ST FLOOR MAP

Connecting Global Minds for Circularity

Coffee & Tea Break

3 pm – 3:30 pm





Session 4 EU Circular Economy Policies

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmbł

EU SWITCH Programme & EU Policies and trends in CE

Matthias Reusing & Christiane Haziyo

Delegation of the European Union to Zambia and COMESA, Zambia

Connecting Global Minds for Circularity







Impact of EU Circular Economy Policies on International Value Chains

by: Matthias REUSING & Christiane HAZIYO, European Union Delegation to Zambia & COMESA **GIZ Circular Economy Week – Connecting Global Minds for Circularity**

18 April 2024 in Brussels





EXTERNAL ACTION

Why Circular Economy matters



Around 90 billion tons of natural resources are extracted every year to support the global economy



Based on current trends, that number is expected to more than double by 2050



Currently, only 9% of resources find their way back into products after their first use







In 2019, humans used nature's resource budget for the entire year by 29 July 2019, the earliest overshoot over the past 20 years

Linear Economy Pathways...















European Union

Reimagining Capitalism, in a World on Fire

REBECCA HENDERSON

REIMAGINING CAPITALISM IN A WORLD **ONFIRE** **Professor Rebecca Henderson** researches & teaches at Harvard Business School's MBA programme

Accordingly, we need to have critical conversations on:

1) Creating Shared Value; 2) Building the Purpose-Driven Organization;

- 3) Rewiring Finance;
- 4) Building Cooperation;

5) Rebuilding Our Institutions & Fixing Our Governments;



European Union RNAL ACTION

From Linear to Circular





The three Principles of Circular Economy





Keep products and materials





DG Environment European Commission

Circular Economy Action Plan

For a cleaner and more competitive Europe



A key to strategic autonomy





Circular economy: the business case

business • New opportunities and new markets



Consumers' demand for more sustainable and circular products and services

Changing the way Europe produces and consumes



Make sustainable products the norm in the EU Empower consumers and public buyers Sustainable production processes

Electronics and ICT Batteries and vehicles Packaging Plastics Textiles Construction and buildings Food, water and nutrients

Reduce Waste Reduce Waste Exports Boost market for high quality and safe secondary raw materials



Making circular economy work for people, regions and cities

Circular economy as a requisite for climate neutrality

Getting the Economics Right

Financial Markets

Investments and R&I

Global Level Playing Field

Monitoring

Towards a global circular economy

- **EU Circular Economy Action Plan;**
 - Will pave the way for a cleaner and more competitive Europe.

Leading efforts at global level to:



An agenda to promote CE at bilateral, regional and multilateral level, including through development & international cooperation & partnership programmes

Negotiations for a global agreement on plastics

Global Circular **Economy and Resource Efficiency** Alliance



CE in free trade agreements

Outreach activities – i.a. Circular Economy Missions



EU Directives/Regulations impacting Global Value Chains

EU Critical Raw Materials Act;

- Will ensure the EU's access to a secure, diversified, affordable and sustainable supply of critical raw materials.
- **EU Deforestation-Free Regulation;**
 - Will guarantee that the products EU citizens consume do not contribute to deforestation or forest degradation worldwide.

EU Carbon Border Adjustment Mechanism;

Will fight carbon leakage and one of the central pillars of the EU's ambitious Fit for 55 Agenda. It will equalise the price of carbon between domestic products and imports.

EU Directive on corporate sustainability due diligence;

- Will foster sustainable and responsible corporate behaviour and to anchor human rights and • environmental considerations in companies' operations and corporate governance.
- **EU Ecodesign for Sustainable Products Regulation;**
 - Will improve EU products' circularity, energy performance and other environmental sustainability aspects.

Stakeholder engagement



What's new

The European Circular Economy Stakeholder Conference at the WCEF 2024! Circular Economy ropean Grcular Econor keholder Platform from Visions to Actions **European Circular Economy** Stakeholder Conference 15 - 16 April 2024 Brussels EU #CEStakeholderEU 🚆 #CircularEconomy #WCEF2024 16 Feb 2024

The European Circular Economy Stakeholder Conference will take place on 15 and 16 April

Upcoming events



WCEF Accelerator Session | The power of partnerships: Stakeholder Engagement Platform Circular STEP



Link to website: https://circulareconomy.europa.eu/platform/en

15 Apr 2024 Brussels, Belgium





SWITCH to Circular Economy in East and Southern Africa (SWITCH-2-CE in ESA) program



Municipal Solid Waste (MSW) Generation in Africa...

Total MSW generation (10³ tonnes/year) of African countries in 2021 (A) and 2025 (B)





Source: UN Habitat & UNEP





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Five Big Bets for Circular Economy in Africa, April 2021

In collaboration with Dalberg





Five Big Bets for the Circular Economy in Africa African Circular Economy Alliance

INSIGHT REPORT APRIL 2021

Thematic opportunity areas

- 1. Food systems;
- 2. Packaging;
- 3. Built environment;
- 4. Electronics;
- 5. Fashion and textiles;

<u>Note:</u> The European Commission (i.e. DG ENV) is a member of the ACEA, representing also EU MS.

Why a focus on East & Southern Africa?



Promotion of South-South Twinning & Peer-to-Peer Learning

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Stakeholder consultations and co-creation...



Regional Economic Communities

Government

Consulting Firms

Etc.

NGOs / CSOs

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Networking Opportunities and co-creation...

World Circular Economy Forum, from 06 to 08/12/2023 in Kigali, Rwanda





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WORLD CIRCULAR

ECONOMY FORUM







Three components of the regional CE programme...

1) Business Enabling Environment & Investment Climate



2) Human & Skills Development

 3) Matching Grant Facility (MGF)
 For Start-Ups, SMEs
 & Joint Ventures **Main principles:**

 South-South Twinning & Peer-to-Peer Learning;

Green & Digital Transformation



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Objectives and Programme Components

Overall Objective (impact): To promote sustainable growth and job creation in Africa

Specific Objective: To support the transition to Circular Economy in East & Southern Africa

The Components in more detail...

Component 1: Awareness, national policies, business enabling environment, investment climate and policy dialogues on CE enhanced

Promote South-South Cooperation & Twinning, across countries within the ESA region;

Component 2: Human and skills in targeted PVCs improved

Peer-to-peer learning / South-South & North-South cooperation, including through e-learning platforms;

Component 3: Matching Grant Facility (MGF) for innovative start-ups & transformative SMEs;

Annual calls for sustainable and circular business plans, targeting PVCs across the region / separate lots for start-ups and SMEs / stimulate joint ventures through business consortia across borders;


Mobilizing additional Access to Finance for transforming SMEs

Global Gateway Europe – Africa Investment Package:

- Mobilize additional loans for SMEs through <u>Financial Instruments</u> under the **"European Fund for** Sustainable Development (EFSD+)";
- **Our potential partners:**
 - European Investment Bank (EIB);



- European Finance and Development Institutions (EFDIs);
- African Development Bank (AfDB);



...and local banks within the ESA region





World Circular Economy Forum 2024 in Brussels



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COVESA

Zambia participants Dr. Douty CHIBAMBA, Permanent Secretary, Ministry of Green Economy & Environment (MoGEE);

COMESA participants Dr. Mohamed KADAH, Assistant Secretary General – Programmes, COMESA Secretariat; Ms Mshuka KAMWELA, EDF Coordinator / EU relations, COMESA Secretariat; Mr. Sudir CHUKUN, COMESA Business Council (CBC);





European Union EXTERNAL ACTION

No planet B

No plan B

#ThisIsTheEU

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THANK YOU



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Audience Interaction



Panel Discussion

Shalini Goyal Challa

International Council for Circular Economy (ICCE), India

Stéphane Arditi European Environmental Bureau (EEB), Belgium

Asst. Prof. Dr. Piti Eiamchamroonlarp Chulalongkorn University, Thailand





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 \bigcirc Benefit from inspiring tools, discussions, and expert online events



Join the Prevent Hub

Practice

- Join our Communities of
- \bigcirc Network with other circular economy practitioners
- \bigcirc get access to the latest resources, calls, news, events and funding opportunities.
- \bigcirc Join weekly matchmaking sessions to either present your work or learn about other members' activities



THANK YOU for joining us today



Connecting Global Minds for Circularity



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S Let's stay in touch

