

**SDMD 2022 - INTERNATIONAL SYMPOSIUM ON  
SUSTAINABLE DEVELOPMENT OF THE MEKONG DELTA**

**Science and Technology  
Driving forces for innovation and sustainable Development**

## **CIRCULAR ECONOMY**

### **Recommendations for Mekong Delta Region**

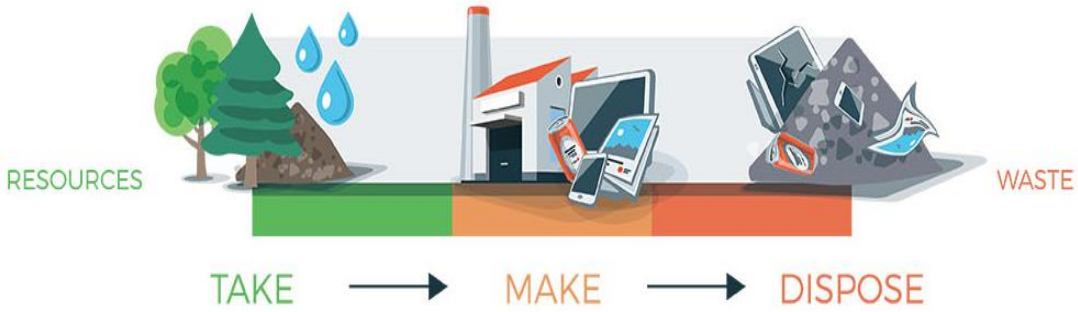
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**CELG school, UEH University**

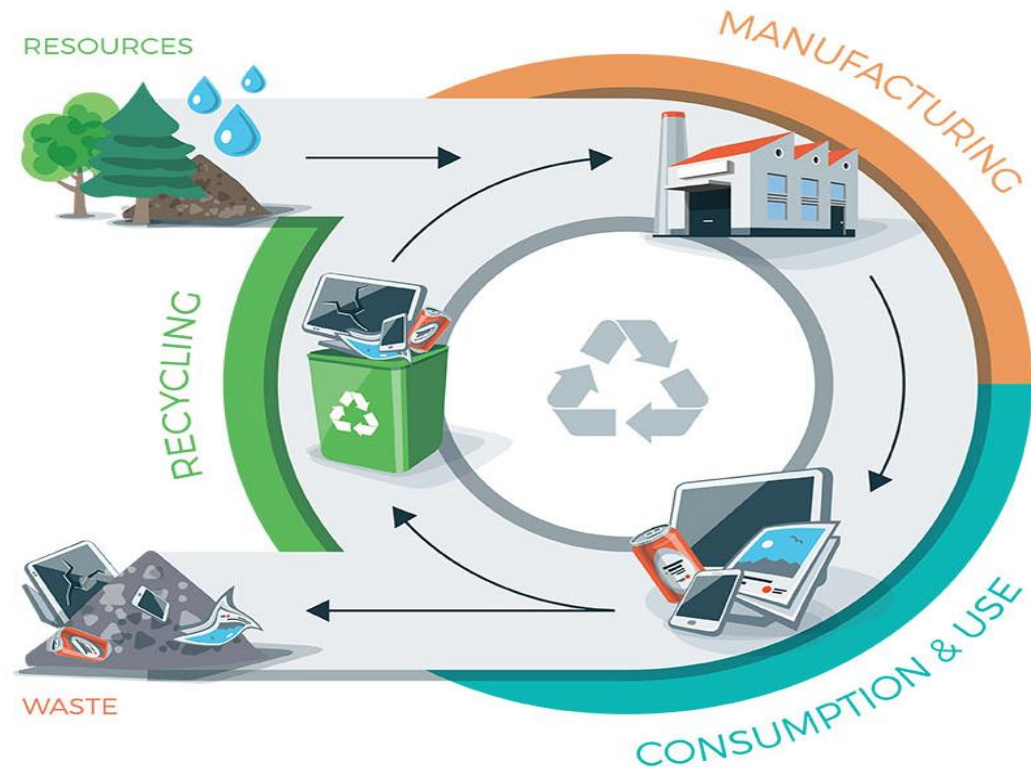
Can Tho, October 30<sup>th</sup> 2022

# Linear Economy vs. Circular Economy

## LINEAR ECONOMY



## CIRCULAR ECONOMY



**The circular economy is viewed as a promising approach to help reduce our global sustainability pressures**

# Circular Economy Definition

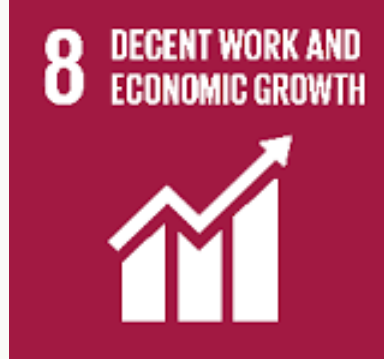
## KEY ACTIVITIES

- Reduce material, close the loop for material
- Recycle, transform waste into a resource
- Restorate and regenerate by design
- Prolong product's life
- Maximize ecosystem functioning, eco-efficiency and resource productivity
- Promote environmental quality and sustainability



Key Definition	Key Terms
"Circular economy is described as a scientific development model where resources become products, and the products are designed in such a way that they can be fully recycled" (p. 13)	Emphasize on recycling
"Circular economy defines its mission as solving the problems from the perspective of reducing the material flux and making the material flow balanced between the ecosystem and the socioeconomic system" (p. 265)	Reduction of material use
"Circular economy (CE) focuses on resource-productivity and eco-efficiency improvement in a comprehensive way, especially on the industrial structure optimization of new technology development and application, equipment renewal and management renovation" (p. 221)	Eco-efficiency and resource productivity
"A circular economy is an industrial system that is restorative or regenerative by intention and design. It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models" (p. 07)	Regenerative and restorative of resources
"A circular economy is an industrial system focused on closing the loop for material and energy flows and contributing to long-term sustainability" (p. 1256)	Closing the loop for material
"A circular economy is one that is restorative by design, and which aims to keep products, components and materials at their highest utility and value, at all times" (p. 16)	Restorative by design
"The circular economy is what seeks to stretch the economic life of goods and materials by retrieving them from post-production consumer phases. This approach too valorizes closing loops but does so by imagining object ends in their design and by seeing ends as beginnings for new objects." (p. 9)	CE prolongs product's life
"Circular economy means to reuse, repair, refurbishing, and recycling of the existing materials and products; what was earlier considered to be waste becomes a resource" (p. 2)	Transform waste into a resource
"The circular economy (CE) is viewed as a promising approach to help reduce our global sustainability pressures according to Ellen MacArthur Foundation and European Commission" (p. 300)	CE promotes sustainability
"circular economy is defined as one in which the value of products, materials, and resources is maintained for as long as possible, minimizing waste and resource use". (p. 2014)	Sustainability development
"The concept of closing material loops to preserve products, parts, and materials in the industrial system and extract their maximum utility" (p. 1)	Products are sustained by the closed-material flow
"CE is an economic model wherein planning, resourcing, procurement, production, and reprocessing are designed and managed, as both process and output, to maximize ecosystem functioning and human well-being" (377)	Maximize ecosystem functioning

# Circular Economy and the SDGs



Rockström and Sukhdev (2016)



# Circular Economy in Vietnamese Policy

1. Circular economy is **an economic model which encompasses** the design, production, consumption and services activities aimed at reducing raw materials, extending product life, reducing waste generation and minimizing adverse impacts on the environment.
2. Every business **shall establish a management system and take measures** to reduce extraction of natural resources, reduce waste and increase waste recycling and reuse from setting up a project and designing a product or goods to production and distribution.
3. Ministries, ministerial agencies and provincial People's Committees **shall incorporate circular economy** immediately at the stage of formulating a development strategy, planning, plan, program or project; managing, reusing and recycling waste. The Government **shall elaborate on criteria, roadmap and mechanisms** for encouraging the implementation of circular economy in conformity with the national socio-economic conditions.



**Article No. 142. Circular  
Economy in LEP in 2020**

## General Criteria for Circular Economy in Decree No. 08/2022/NĐ-CP

- Reduce the exploitation and use of non-renewable resources and water resources; increase efficiency of resource use, materials; save energy;
- Extend useful life of materials, equipment, products, goods, parts;
- Reduce waste generated and minimize adverse impacts on the environment; reducing disposable products; develop green purchasing habits.

## Decision No. 687/QĐ-TTg on approving the scheme for circular economy development in Vietnam

THỦ TƯỚNG CHÍNH PHỦ CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM  
Độc lập - Tự do - Hạnh phúc

Số: 687/QĐ-TTg

Hà Nội, ngày 07 tháng 6 năm 2022

**QUYẾT ĐỊNH**  
Phê duyệt Đề án Phát triển kinh tế tuần hoàn ở Việt Nam

THỦ TƯỚNG CHÍNH PHỦ

*Căn cứ Luật Tổ chức Chính phủ ngày 19 tháng 6 năm 2015; Luật sửa đổi, bổ sung một số điều của Luật Tổ chức Chính phủ và Luật Tổ chức chính quyền địa phương ngày 22 tháng 11 năm 2019;*

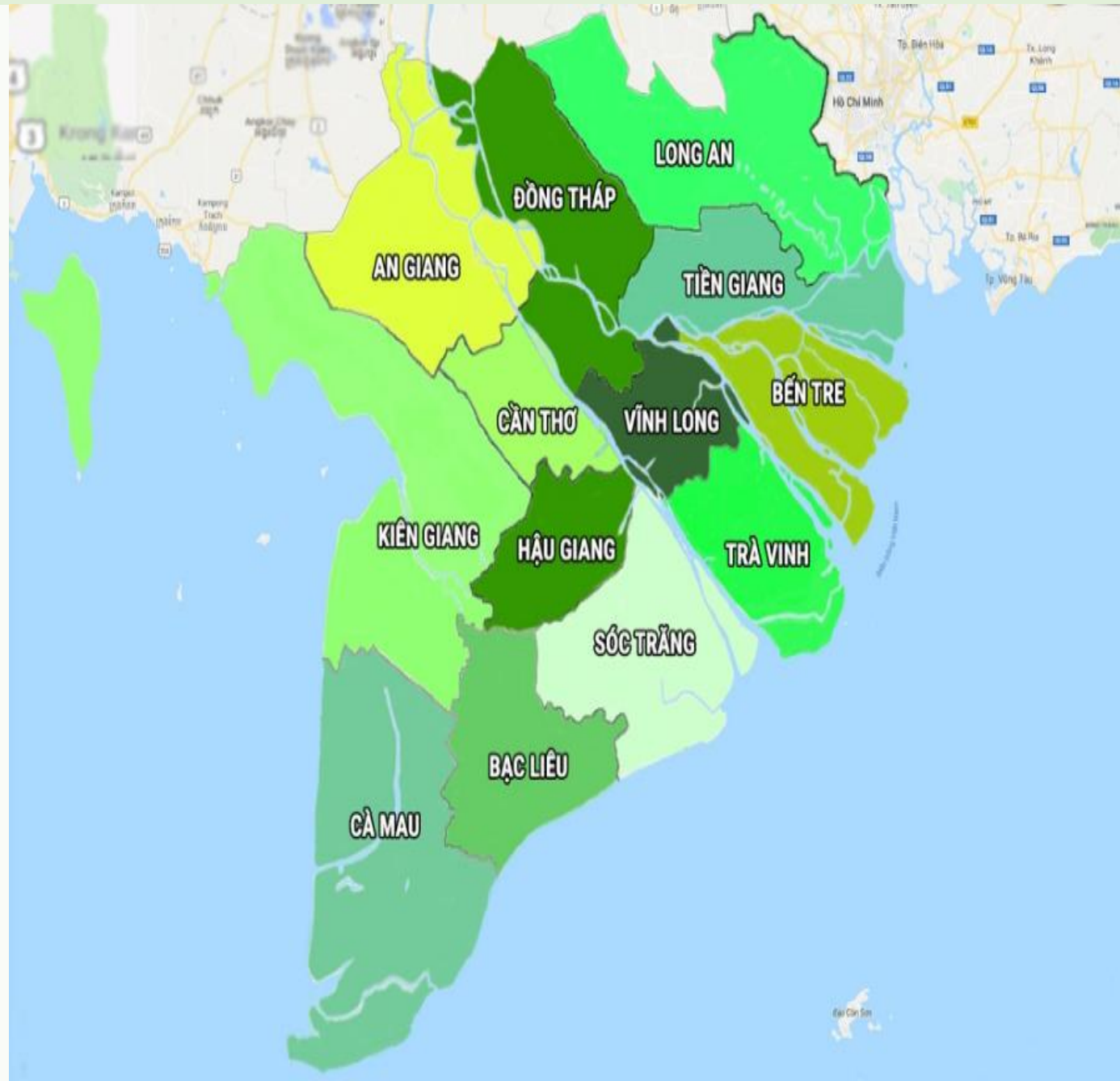
*Căn cứ Nghị quyết số 01/NQ-CP ngày 01 tháng 01 năm 2021 của Chính*

Resolution No. 78/NQ-CP promulgating the Government's Action Program on implementation of the Political Bureau's Resolution No.13-NQ/TW, on orientations for socio-economic development and assurance of national defense and security in the Mekong River delta through 2030, with a vision toward 2045

## Land use

83.5 % agricultural land including forest

12.6% water surface for aquaculture



1. Circular economy implementation with a priority on agriculture
2. Circular economy model to be ecosystem-based and climate resilient
3. Circular economy strategies in the region to maximize utilization of agricultural water use and waste water reuse

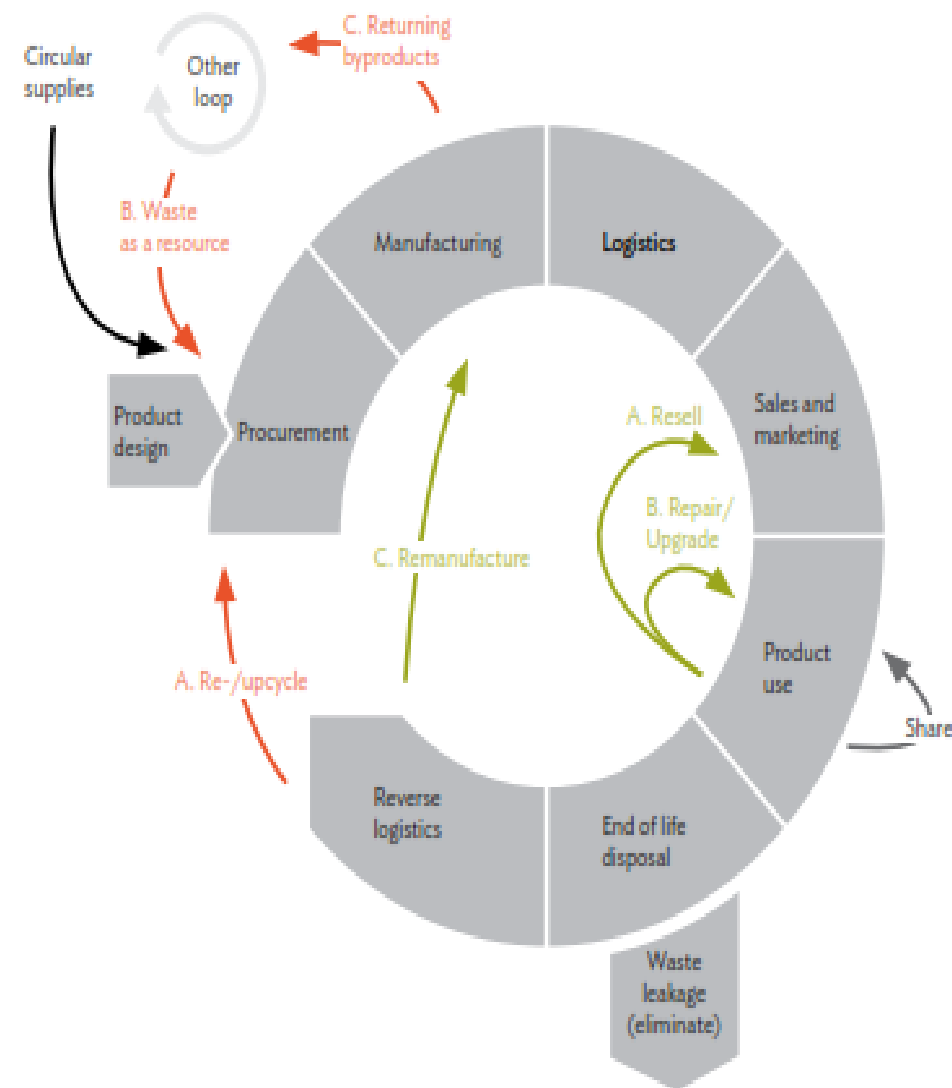




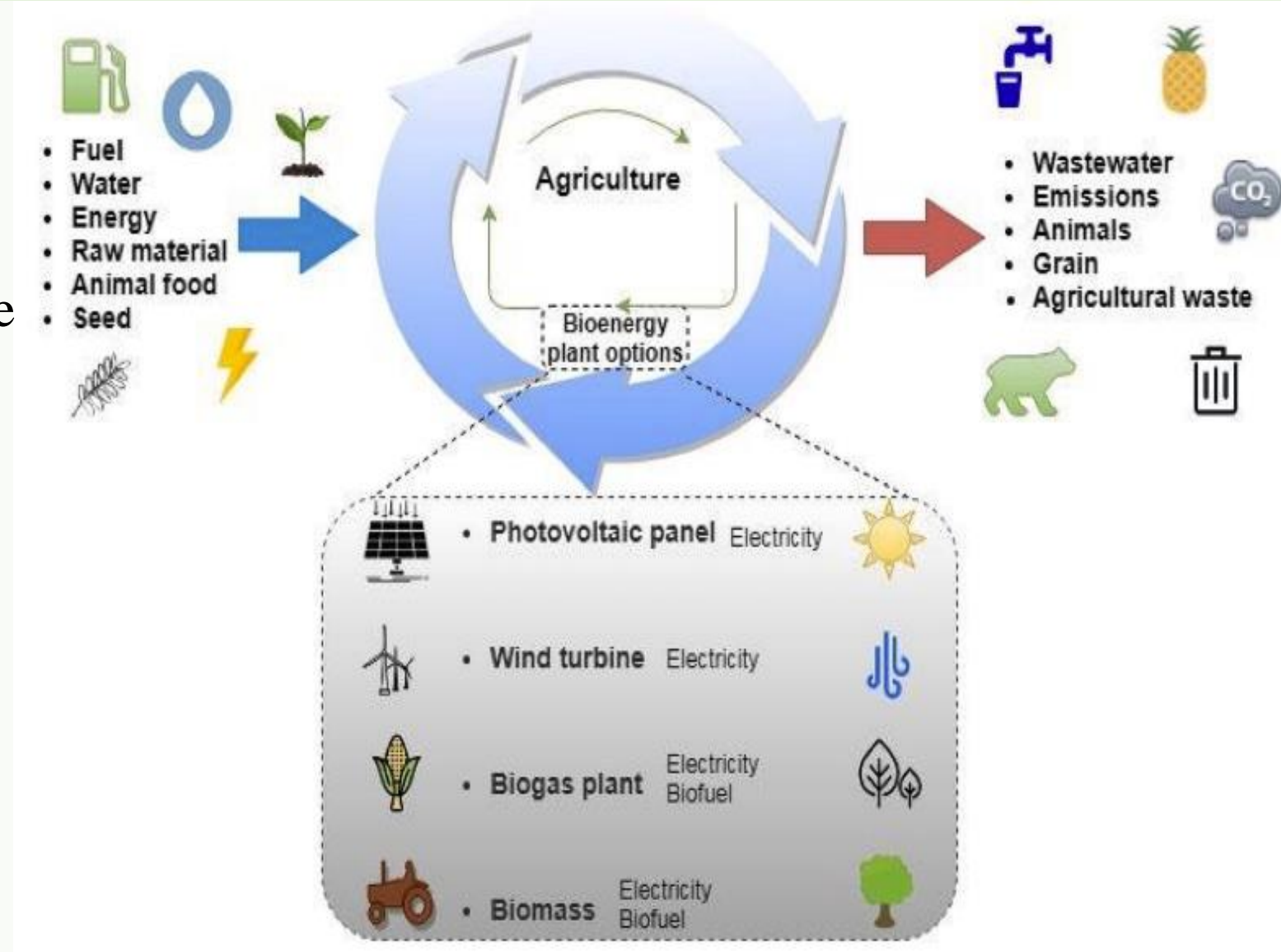
4. Incentives based on circularity assessment at nano and micro levels

5. Business start up with the support for the circular economy business model

- Circular Supplies:** Provide renewable energy, bio based or fully recyclable input material to replace single-lifecycle inputs.
- Resource Recovery:** Recover useful resources/energy out of disposed products
- Product Life Extension:** Extend working lifecycle of products and components by repairing, upgrading and reselling
- Sharing Platform:** Enable increased utilization rate of products by making possible shared use/access/ownership
- Product as a Service:** Offer product access and retain ownership to internalize benefits of circular resource productivity
- \*Can be applied to product flows in any part of the value chain*



## 6. Opportunities for circular economy practices in agriculture to transform waste to energy





**Thank you for your attention**

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