

ANDREW L. TAN CENTER FOR TOURISM

Circular Economy in Philippine Tourism

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COVID-19 PANDEMIC: RE-IMAGINING TOURISM



There's no returning "back to normal"



High time to rethink the business models and values of tourism industry

The pandemic gives a unique opportunity to reflect and ask important questions about the future of tourism.



HOW CAN ONE MITIGATE TOURISM'S ADVERSE ENVIRONMENTAL AND SOCIAL IMPACTS?

HOW CAN WE ENSURE THE INDUSTRY'S OVERALL RESILIENCE?

WHAT ARE THE RISKS AND OPPORTUNITIES AMIDST 21ST CENTURY SUSTAINABILITY CHALLENGES?

WHAT KIND OF FUTURE DO YOU WANT TOURISM TO HAVE?

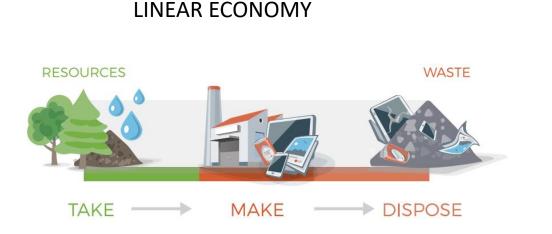
CIRCULAR ECONOMY AS A <u>CRITICAL COMPONENT</u> IN THE POST-PANDEMIC (FUTURE) OF PHILIPPINE TOURISM.

1 What is Circular Economy (CE)?

- 2 What are the Principles of CE?
- $\mathbf{3}$ How can CE be applied in tourism and hospitality industry?
- 4 What needs to be done?

WHAT IS <u>CIRCULAR</u> ECONOMY?

VS



- "take-make-waste pattern" in which with energy, labour and capital produce goods and services obtained from natural resources with a single life cycle
- ✓ extract/produce and consume/throw: exhausts natural resources and generates waste
- assumes that there is an unlimited supply of natural resources + environment has an unlimited capacity to absorb waste and pollution



- ✓ "Closing the life cycle"
- ✓ reconsidering waste as a new resource that can be reused
- radical change in the current production system
- ✓ its underlying restorative and regenerative principles for production, distribution, and consumption
- ✓ sustainability concept

PRINCIPLES OF CIRCULAR ECONOMY (CE)



Source: https://www.ellenmacarthurfoundation.org/circular-economy/what-is-the-circular-economy

TOURISM'S IMPACT ON THE ENVIRONMENT

SECTION 4 Environmental The rest of the GHG emissions ---> Energy The main points to note from this graphic are: value chain hotspots in the Environmental hotspots were identified through the ---> Water Water use Transport, textiles, metals and other materials processes of data analysis and stakeholder consultation using a life cycle approach. Mapping out the tourism tourism value chain Energy use ---> Food value chain provides the 'big picture' required to identify m ----> Waste sustainability hotspots. Waste The graphic provides a simplified representation of the tourism ---> Other Hotspots value chain, taking a life cycle approach to illustrate the location SCOPE III and nature of six priority hotspots from farm to fork, mine to hotel SCOPEII SCOPEI and water supply to wastewater treatment. **Electricity Generation** Hotels, restaurants & **MICE establishments: Mining and** 2456 fossil fuels Liquid and Solid waste n the value chain, (outside of the establishments), direct emissions are still important, as they are within their direct Renewable Water supply energy +++Farming Processing of food Environment 13 m m m 3% 5%

Θ

from landfills.

HOTSPOTS Each one of the numbered boxes to the right represents a significant environmental impact hotspot identified by project partners and

tourism stakeholders in

the Philippines.

Meat and dairy products: GHG emissions from the rearing of livestock for meat and dairy products (e.g. methane emitted through bovine enteric fermentation) account for estimated 31% of the GHG emissions for hotels and establishments.

€ 8 ♦ Electricity use hotels and **Farming and beverage**

users of electricity.

establishments: for example, production: In the tourism value lighting, heating, ventilation and chain, most water is used on air conditioning (HVAC) of rooms, farms and in beverage public spaces, back of house production. Rice in particular areas. In the whole tourism value uses a significant amount of chain, hotels are the biggest water for irrigation, and contributes about 13% to the country's GHG emissions.

6 💧 🖷 A 💧 📅 Food waste in hotels and Water use in hotels and

establishments: Washing and establishments: initial estimates show that 7-12% meat waste and sanitation in guest rooms, 20% of edible vegetable parts cleaning of rooms and public are wasted in hotel kitchens and spaces, laundry services, food by customers. Unused food is preparation and cooking, likely to account for a large irrigation of grounds, swimming proportion of organic waste also pools and waste-water treatment are all the likely significant uses of leading to methane emissions water.

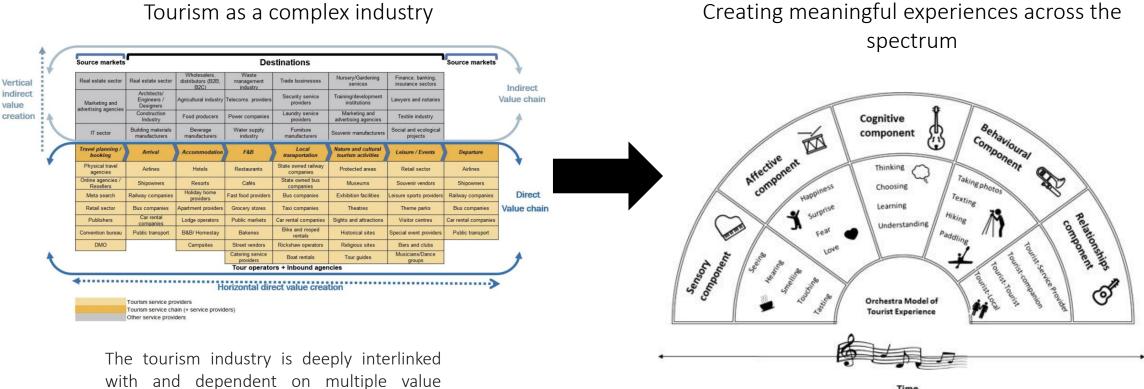
6 Water, air and land pollution from liquid and solid waste,

resulting from a lack of modern, regulated waste management infrastructure. This is a threat to tourism amenities and drinking water supply. The low cost and convenience of single use plastics have made

the Philippines one of the world's top three' plastic polluters.

CIRCULAR ECONOMY AND TOURISM + HOSPITALITY NEXUS

How to apply CE in Services Industry (Tourism and Hospitality)?



Tourism as a complex industry

chains in society - from agriculture to

transport industries.

Tourism and Hospitality:

Design experiences that incorporate the principles of circular economy



Masungi Georeserve





Source:https://www.masungigeoreserve.com/

- ✓ Best practice in environmental conservation
- ✓ Educating visitors about the importance of conservation and preservation
- ✓ Use of locally (traditional) available products and produce
- Employing locals in the community (community conservation)
- ✓ Showcase of local culture and tradition
- ✓ Strict implementation of policies for visitors



DALUYON BEACH AND MOUNTAIN RESORT









Used cooking oil as fuel for tea light





Louver ventilation installed on the roof of a guest room

The newly installed water sprinkler at the roof of the tent

- ✓ Best practices of architecture and design: sunlight and airflow in a resort's design
- ✓ Zero Carbon Resorts (ZCR) project (3R strategy: reduce energy consumption, replace inefficient technologies, and redesign buildings and systems)
- \checkmark Use of indigenous, biodegradable materials
- ✓ Recycling and proper waste management
- \checkmark Skilled maintenance engineers
- ✓ Engagement of staff

	Actions
Reduce energy consumption	Installation of tubular lighting, louver roof ventilation, water sprinklers on the roof, light sensors and energy monitoring equipment
Replace inefficient appliances and equipment	Replacement of conventional technologies to energy and environmentally sound equipment such as A/C inverter units, Smart LED televisions, and solar energy equipment for heating water.
Redesign Buildings into more self- sufficient and carbon-neutral structures.	 Use of both active and passive cooling techniques through sustainable architecture and use of renewable energy, including: Combination of air-condition units and natural ventilation; Use of solar power for LED lighting in guest rooms and beach bar;
	 Transition to a gas absorption chiller and heater technology;
	 Use of local and sustainable materials for the resort's main structures. For example, locally available cogongrass was used for rooftops and recycled wood for the panels and furniture.



El Nido Resorts

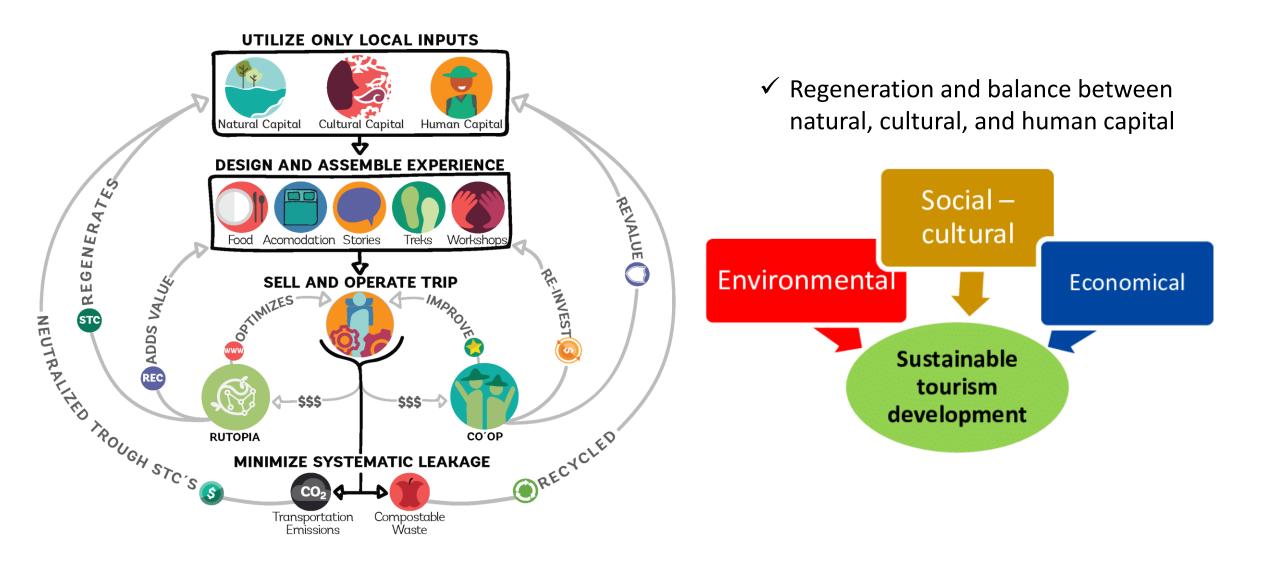




Source: https://environment.elnidoresorts.com/about/what-we-do/

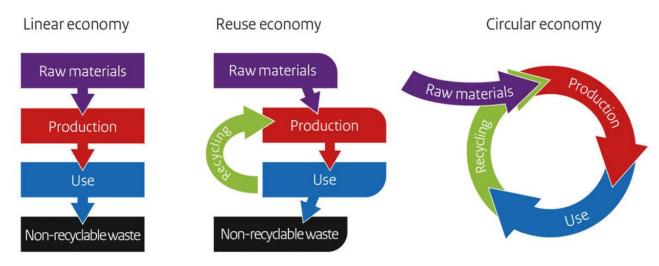
- Environmental Practices Training and Education with resort staff, community members, and visitors:
 - Be G.R.E.E.N (Guard, Respect, Educate El Nido) environmental practices training seminars
 - Pa-Berdehan: The El Nido Resorts Eco Challenge"
- ✓ Use of Green technology (e.g., installation of Solar Panels, Mooring Buoys, etc.)
- ✓ Local Purchases for Sustainable Menus
- ✓ Support for Scientific Studies
- ✓ Low Impact and Sustainable Guest Experiences

CIRCULAR ECONOMY AND SUSTAINABLE TOURISM



TRANSITIONING TO CIRCULAR ECONOMY

From a linear to a circular economy



- 1. Legislative and Policy Support
- 2. Zero-Carbon Enterprises
- 3. Tourism Branding
- 4. Stakeholder Engagement

THANK YOU

SALAMAT

Tagalog / Filipino

धन्यवाद

ขอขอบคุณ

Arabic

Thai

TERIMA KASIH

Malay / Indonesian

ຂອບໃຈ

Lao

ΑΙΜ



Korean

ありがとう

Japanese



Chinese