

## Re-vitalizing Energy Transition in Touristic Islands

# ENERGY TRANSITION IN ISLANDSROLE and POWER of VISITORS

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### **Description**



The role of visitors' behaviour and actions in full perspective

- before,
- during
- after their stay

as a key action for the future of islands and their energy transition.

Criteria for selecting places and actions during their stay and on the evaluation of a place in an island, based on ET and Sustainable and Clean Energy.



### **Learning Outcomes**



Provide an overview of criteria that will allow the visitors to help in adoption and acceleration of the ET of islands.





At the local, regional, and international levels, renewable energy technologies may have favourable socioeconomic and environmental effects.

However, switching to renewable energy sources necessitates large capital expenditures, which necessitates the use of alternate financial sources, especially in poor nations.





Renewable energy sources can by replacing fossil fuels, help mitigate:

- global warming
- greenhouse gas emissions

the environmental impact of extractive industries



Additionally, investments in renewable technologies can:

- create jobs
- boost economic growth
- enhance the local environment

Given the high costs of importing fossil fuels to meet an expanding demand for energy, RE projects might assist lower the cost of electricity generation in small islands.





Despite the availability of the technology, the switch to renewable energy necessitates significant capital expenditures.

This is particularly true in light of the COVID-19 pandemic, which raised the cost of producing renewable energy facilities.

To finance RE projects, a range of green policies have been proposed, such as carbon pricing, tradable green certificates, and green credits.





An instrument known as carbon pricing links the external costs of greenhouse gas (GHG) emissions to their sources by attaching a price to the carbon dioxide (CO2) emitted.

#### These external costs include:

- damage to crops
- medical expenses from heat waves and droughts
- property loss from flooding and sea level rise.

A carbon price aids in redistributing the cost of the harm caused by GHG emissions to those who can prevent it and are accountable for it.





Rather than prescribing who should cut emissions, where they should be cut, and how, a carbon price gives emitters an economic signal that lets them choose to change their practices and cut emissions or keep on emitting and paying for them.

This is the most flexible and economical approach for society to attain the overall environmental aim.





- In order to internalise the external cost of climate change in the widest spectrum of economic decision-making and to establish financial incentives for clean growth, it is imperative that GHG emissions be priced appropriately.
- In order to support clean technology and market innovation and create new, low-carbon engines of economic growth, it can assist in raising the necessary funds.





Governments and corporations alike are increasingly in agreement on the essential role that carbon pricing plays in the shift to a decarbonised economy.

One of the tools in the climate policy package that countries need to use to cut emissions is carbon pricing. It usually serves as a source of income as well, which is crucial in a budget-constrained economic climate.





Companies utilise internal carbon pricing as a tool to find possible climate hazards and income possibilities, as well as to assess how obligatory carbon prices may affect their operations.

Lastly, long-term investors might reevaluate their investment plans and reallocate funds to low-carbon or climate-resilient endeavours by using carbon pricing to examine the possible effects of climate change legislation on their investment portfolios.





Pricing for carbon may take many different forms.

Generally speaking, the Carbon Pricing Dashboard and the State and Trends of Carbon Pricing series concentrate on direct carbon pricing tools, or those that impose a price incentive that is exactly proportionate to the greenhouse gas emissions produced by a specific good or activity (mostly carbon taxes, ETSs, and carbon crediting mechanisms).

Nonetheless, several countries have imposed carbon taxes with different tax rates (per metric tonne CO2) for different fuels.

Despite being referred to as "carbon taxes" and having previously been covered in State and Trends Reports, these policies are more closely aligned with the concept of indirect carbon pricing because carbon prices vary throughout fuels.



A marketable asset that certifies that power was produced using renewable (green) energy is called a "green certificate."

others often, it is known as a Guarantee of Origin (GO or GoO) from a renewable energy source.

Other names for it include Renewable Energy Certificate (REC), Renewable Obligation Certificate (ROC), and others.





Green certifications are exchanged willingly or for compliance purposes.

Because of government regulations requiring suppliers to have a specific proportion of renewable generation in their supply portfolio, green certificates are issued and exchanged in compliance markets.

Governments may use green certificates to set precise goals for a nation's renewable output level, and the market will figure out the best method to reach these goals.

It serves as a substitute for other policy tools including feed-in tariffs, fiscal advantages, and subsidies for renewable production and investment.





Greener or more inventive technologies receive more green certificates than other technologies per MWh of electricity generated.

In compliance markets, the quantity of green certificates may vary depending on the source.

Generally, a green certificate is granted for every 1 MWh of renewable power.





In order to obtain assured green power, green certificates—more commonly known as Guarantees of Origin—are voluntarily obtained.

This enables end users to lessen their carbon impact, including homes and enterprises.

Businesses profit from this as it enhances their brand and gives them a competitive advantage in a world where environmental issues are becoming more and more important.



#### **Tradable green certificates - Green Certificate trading**



One may think of a green certificate as the reverse of an emission certificate.

Green certificates generate additional cash for renewable production and ensure a minimum of renewable output, whereas emission certificates, like EUAs (EU Allowances), impose a cost on non-renewable production and set a maximum to the overall emissions.

The market's level of scarcity determines the green certificates' price. When the green credentials program is motivated by strict government policy objectives, the cost is greater.

Because certificates, unlike emission certificates, cannot be transferred between European markets, the market as a whole is frequently tiny and trading is not very liquid.



This is one of the reasons why green certificate compliance markets have been less popular in recent years, and only a small number of European nations—including Belgium, Sweden, Norway, and Poland—remain dependent on this system.

With the exception of Sweden and Norway, who have a common Elcertificates market (ElCert), the majority of marketplaces are nationally structured.

The Green Power Hub platform or brokers like STX, Cleanworld, Evolution Markets, and ACT handle the majority of trading activity.



#### Difficulties in renewable energy implementation



However, those green policies may be difficult to execute in a number of developing nations, and when they do exist, they may encounter a number of obstacles related to the inherent uncertainties of funding RE projects.

Because they can be influenced by corporate confidence and economic policy uncertainties, present green finance strategies may not be helpful in easing the transition to renewable energy, even in wealthy nations like the US.

In nations with weak credit markets and a limited amount of current technological capabilities, green finance may be less successful in accelerating the shift to renewable energy.



#### Difficulties in renewable energy implementation



Because of this, many developing regions may not be able to pay the necessary expenditures, underscoring the need for alternative financing methods to encourage the use of RE technology in those regions.

Entrance fees and tourism taxes are frequently seen as viable ways to fund public investments in small island developing states that mainly depend on tourism.

Initiatives to raise taxes and fees to finance RE projects, however, might be contentious because of the possible harm to the local economy.

Under those circumstances, it is crucial to identify alternative funding for public investments, and voluntary donations from visitors may be a potential funding source.

Only lately has public policy interest in the close relationship between tourism and sustainable growth in SIDS acquired worldwide attention due to growing concerns about their fragility.

Two challenges must be addressed by decision makers: they must investigate new funding sources and markets, and they must allocate limited resources more effectively to safeguard the local economy, society, and fragile environment.

Information about the preferences of potential donors and tourists could help decision makers in this regard.

Stated preferences methods, in particular CEs, have been used specifically to ascertain travellers' preferences for nature-based ecotourism and sustainable tourism development in developing nations.





The determinants of preferences, WTP, and trade-offs that potential tourists have for sustainability in the environment, culture, and industry are the main topics of empirical evaluation.

Gaining a better understanding of how tourism supports SDGs and sustainable development is the goal.

Policymakers and the tourist industry at large may better create policies and programs that cater to the requirements and preferences of both new and existing market segments with improved evidence of the trade-offs between the many aspects of tourism sustainability.

A sustainable and equitable development route can be supported by funding schemes and resources that are evaluated based on the value that potential visitors place on sustainable tourism in distant places.



It is implied that people's understanding of the services offered by the various ecosystems and their awareness of the necessity for their preservation are improved by prior experience visiting SIDS.

Regarding site preservation management, which embodies the cultural component of tourism, tourists often prefer the chance to engage with the local way of life and hence seek out sustainably managed tourist destinations.

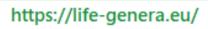




Eco-friendly management is strongly preferred by tourists, while those who have been to a SIDS only choose the best (i.e. waste management + water and energy savings).

After visiting a SIDS, visitors are more inclined to contribute to programs that preserve natural areas. They also support the most efficient and ecologically sustainable methods of providing lodging for visitors.

Additionally, tourists that exhibit more pro-environmental private behaviours and ecotourism attitudes are also more inclined to make donations to support the development of sustainable tourism initiatives in distant locations as well as the preservation of remote ecosystem services.





To encourage sustainable tourism, it is necessary to educate prospective travellers on the value of tropical nations' natural resources and indigenous cultures.

Financially speaking, policymakers in SIDS may utilise our findings to think about creating new ecosystem services payment plans specifically for ecofriendly travel initiatives.

For instance, payment plans that encourage more environmentally friendly practices (like better waste and water treatment) by developing a local labelling system for resorts; or developing new kinds of sustainable entry tickets (like ones that are seasonal and limited in quantity) for communities or marine protected areas.





"Responsible travel to natural areas that conserves the environment and improves the welfare of the local people" is how the International Ecotourism Society (TIES) defined ecotourism in 1991.

The guiding principles of ecotourism are to:

- a) reduce adverse environmental effects;
- b) foster cultural and environmental awareness and respect;
- c) offer positive experiences to both hosts and guests;
- d) directly fund conservation;
- e) empower locals and provide financial benefits; and
- f) increase awareness of the political, environmental, and social climate of host countries.









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