



Think Green, Built Future

## **CLIMATE CHANGE**

Climate Change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly

UNITED NATIONS



**77** 

## **GLOBAL WARMING**

#### **GREENHOUSE GASES (GHGS)**

Greenhouse gases occur naturally and are essential to the survival of humans and millions of other living things, by keeping some of the sun's warmth from reflecting back into space and making Earth livable. But after more than a century and a half of industrialization, deforestation, and large scale agriculture, quantities of greenhouse gases in the atmosphere have risen to record levels not seen in three million years. As populations, economies and standards of living grow, so does the cumulative level of greenhouse gases (GHGs) emissions





The concentration of GHGs in the earth's atmosphere is directly linked to the average global temperature on Earth;

The concentration has been rising steadily, and mean global temperatures along with it, since the time of the Industrial Revolution;

The most abundant GHG, accounting for about twothirds of GHGs, is carbon dioxide  $(CO_2)$ , is largely the product of burning fossil fuels.





## LEED GOLD CERTIFICATION

FIRST ECOLOGICAL AIRPORT IN THE WORLD

The Galapagos Ecological Airport was conceived, designed and built, in its entirety, as a sustainable building. Every strategy and environmental characteristic was assessed and certified.

Stand out among them:

 The reduction of energy consumption and the production of clean energy. The airport functions 100% with renewable energy. of affected Recovery and areas endemic · Adequate natural lighting and ventilation in all spaces. • The reduction of water consumption; increased water and reuse. Recycling of more than 80% of the material from the old airport.

On November 20, 2014, the airport was certified LEED, Leadership in Energy and Environmental Design, Gold level by the U.S Green Building Council, becoming the first ecological airport in the world.

## LEED GOLD

ТΜ



### AIRPORT CARBON ACCREDITATION FIRST IN LATIN AMERICA AND THE CARIBBEAN

The Galapagos Ecological Airport became the FIRST in Latin America and the Caribbean to be **Carbon Neutral** and the second in the entire American continent.

This achievement is certified by the ACI, Airports Council International, through its Airport Carbon Accreditation program, the only institutionally endorsed system that allows the evaluation and recognition of the efforts of the participating airports to manage, reduce and offset their emissions of GHG, greenhouse gas.

The Level 4 "Neutrality" accreditation (Neutral Carbon) was received on December 18, 2017, marking an important precedent in the region that allows us to determine the direction that all airports in the world should follow, confirming that it is possible to take care of the environment without abandoning the quality of the airport operation.

The certification process began in 2014 and since then, it has been possible to reduce greenhouse gas emissions by operating the airport in a sustainable manner. In addition, it is the first in the world to operate 100% with renewable energy (solar and wind).





# **4 Levels of Certification**



- Determine its 'operational boundary' and the emissions sources within that boundary which are Scope 1 and Scope 2 sources, as defined by the <u>Greenhouse Gas</u> <u>Protocol</u>
- Collect data and calculate the annual carbon emissions for the previous year for those sources
- Compile a carbon footprint report
- The carbon footprint calculation has to be in accordance with ISO14064

Fulfil all the requirements of 'Mapping'

٠

- Provide evidence of effective carbon management procedures including target setting
  - Show that a reduction in the carbon footprint has occurred by analysing the carbon emissions data of consecutive years

- Fulfil all the requirements of 'Mapping' and 'Reduction'
- Widen the scope of its carbon footprint to include a range of Scope 3 emissions. <u>(GHG</u> Protocol)

Scope 3 emissions to be measured include:

- landing and take-off cycle emissions
- surface access to the airport for passengers and staff
- staff business travel emissions
- any other Scope 3 emissions which the airport chooses to include.
- Presentation of evidence of engagement with third party operators to reduce wider airportbased carbon emissions

Requires neutralising remaining direct carbon emissions by offsetting.



# **ACCREDITATION GOALS**



Achieve carbon neutrality



Promote knowledge through technology transfer



Recognition to the community's advances in the topic of global warming and energy efficiency



Improve the image and credibility of the airport



Identify and execute improvements in procedures to improve energy efficiency



Create awareness of climate change and energy saving



## ANNUAL INFORMATION FOR CARBON FOOTPRINT CALCULATION



- Diesel, gasoline, CO2 and PLG consumption (Airports staff, Stakeholders, others)
- Operations (number of flights, flight time, time on land, type of aircraft, movement of passengers and cargo)
- Security (records of the staff's movements)
- Corporate flights Consumption of electricity from fixed sources, wind energy and stakeholders
- Staff training on environmental issues and carbon footprint reduction
- Biannual audit of the information
- Reduction and Compensation Program
- Accreditation's annual renewal





# **RENEWABLE ENERGY**

The airport operates with 100% renewable energy. 30% comes from photovoltaic panels and the remaining 70% from 3 wind towers located on Baltra Island.







## **ENERGY EFFICIENCY**

LUTRON energy-saving light control

## Aeropuerto de Baltra Aeropuerto Baltra V

**Compared Lighting Energy Saved Over Last Year** 

3:23 PM March 29, 2019



#### SAVING ENVIRONMENT

206.6T CARBON DIOXIDE NOT EMITTED









# ENERGY EFFICIENCY & RENEWABLE ENERGY







# DESALINATION PLANT & WATER TREATMENT PLANT





The desalination plant uses ocean water

Once treated is transported to storage tanks located next to the main building

#### SAVING OF: \$120K PER YEAR



After it has been used, it is recollected, treated and recycled



Wastewaters are processed for reuse in irrigation of gardens

SAVING OF: \$205K PER YEAR





# DESALINATION PLANT & WATER TREATMENT PLANT















It is designed to take advantage of the breeze of the prevailing winds, thus lowering the average temperature without the use of air conditioning, improves ventilation and regulates, with greater control, the amount of sunlight.







Endemic plants from Baltra Island have been protected and relocated to the gardens and natural areas recovered from the terminal to capture CO2



## **FUEL CONSUMPTION**

## REDUCTION



2014 2015 2016 2017 2018



## **ANNUAL AMOUNT OF C02 ISSUED**

## REDUCTION



## **CORPORATE COMMITMENT**



The Galapagos Ecological Airport has earned a worldwide recognition for its environmental achievements. Our commitment is to keep on that track and contribute to the industry and the world with sustainable initiatives, creating a culture of protection to the environment





# We encourage sustainable goals



FIRST AIRPORT IN LATIN AMERICA & THE CARIBBEAN NEUTRAL CARBON CERTIFICATION



SUSTAINABLE DEVELOPMENT G ALS LEADER IN ECUADOR



SIGNATORIES OF THE BUCKINGHAM PALACE DECLARATION

Think GREEN, Build FUTURE.



FIRST ECOLOGICAL AIRPORT IN THE WORLD LEED GOLD CERTIFICATION



Red Ecuador AFFILIATED TO THE UN INITIATIVE THAT PROMOTES SUSTAINABLE DEVELOPMENT



WE SUPPORT A JOINT INITIATIVE OF The UN Global compact and un women



THANK YOU

**y f o** www.ecogal.aero