XI CHARTER NETWORK MEETING

9 – 11 April
post-conference excursion:
12 – 14 April 2019

GREECE
Tzoumerka, Acheloos Valley,
Agrafa and Meteora
National Park

The social and cultural impacts of tourism: exploring a sustainable response

europarc.org/xi-charter-network-meeting/

workshops | fieldtrips | networking

A tool for visitor management in protected areas.

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20 TOURIST PLACES

That need to be protected

Millions of visits per year

Gran Muralla CHINA 8,2

Ciudad Prohibida PEKÍN 15

Torre de Londres 3

Museo de Historia Natural 6

Museo Británico 7

LONDRES

Taj Mahal AGRA 7

Gran Palacio BANGKOK 8

Angkor Wat CAMBOYA 2,3

Palacio de Versalles 7,5

Museo del Louvre 9

Catedral de Notre Dame 14

PARÍS

Gran Bazar 91

ESTAMBUL

Stonehenge INGLATERRA 1,3

Jardines de Claude Monet GIVERNY 0,6

Cataratas del Niágara 22,5

Torre de Pisa 1

Museo Uffizi FLORENCIA 2

Capilla Sixtina ROMA 6

Dubrovnik CROACIA 1

ITALIA

Venecia 30

Fuente: 'The Telegraph', febrero de 2016

The **overcrowding** of tourist destinations
Where are the limits?

Venice 30,000 tourists/day
60,000 inhabitants

Barcelona 12.6 M tourists/year

The concept of tourist carrying capacity

The World Tourism Organization (WTO) proposes the following definition:

"The maximum number of people who can visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitor satisfaction".

This definition has a series of components / dimensions: ecological-environmental, cultural, economic, psychological (resident and tourist) that make its practical application difficult

Our tourist destinations are the protected areas

What is a protected area?

"A clearly defined, recognized, dedicated and managed geographical space, through legal means or other types of effective means to achieve the long-term conservation of nature and its ecosystem services and their associated cultural values" (IUCN, 2008)

OBJECTIVES

1º CONSERVATION

2º SOCIOECONOMIC DEVELOPMENT

3º PUBLIC USE: (Management of tourists / visitors)

In the United Kingdom, the Peak District National Park is one of the most visited national parks in the world, 12 M / year

PEAK DISTRICT NATIONAL PARK

Visitors on natural protected areas.

Total number of visits / year received by <u>Spanish protected areas</u>: at least <u>30 million</u>. Slight growth in recent years.

The <u>15 national parks </u>currently receive about 15 M / year

* **Sorting problems due to the use of space between different users**

The concept of carrying capacity for public use:

"The maximum level of visitors that a given area can support with the least ecological impact and the highest possible level of satisfaction during the visit".

MULTIPLE APPLICATIONS....

- Natural heritage:
  - Protected areas (system of public use)
    * Walking trails
    * Beaches
    * Gorges
    * Diving…

- Cultural heritage:
    * The Alhambra

The concept of carrying capacity

In order to estimate the overall value of the carrying capacity, the physical, ecological and psychological carrying capacity is analyzed individually.

<u>**Physical carrying capacity**</u>, **number of visitors that a specific area can accommodate according to their own physical characteristics (dimensions, difficulty of transit, etc.) and of the host facilities linked to it (trails, parking, recreational areas, viewpoints, etc.).**

In the case of TRAILS, the methodology of Cifuentes (1992; 1999) is applied:

$$\sum \left(\frac{DT}{DG} \cdot \frac{TT}{TV}\right) PG$$

Where,

- **DT: total distance of the trail.**
- **DG: recommended average distance between groups (40 m).**
- **TT: daily visit slot (about 8 h).**
- **TV: average time dedicated to the visit.**
- **PG: average number of people per group.**

Applying the formula: $\sum \left(\dfrac{DT}{DG} \dfrac{TT}{TV}\right) PG$
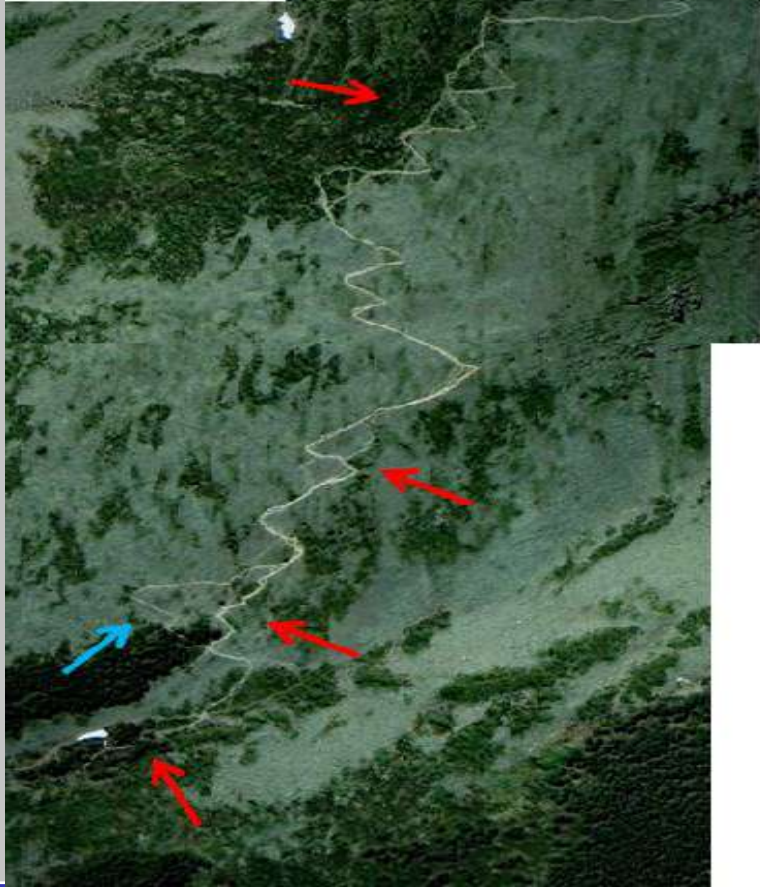
Where,

DT: total distance of the trail.

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PG: average number of people per group.

$$\left(\dfrac{\dfrac{5.500 \text{ m}}{40 \text{ m}} \text{ x } \dfrac{8 \text{ h}}{3 \text{ h}}}{2}\right) \text{ x } \textbf{3,15 people / group = 576 people day}$$
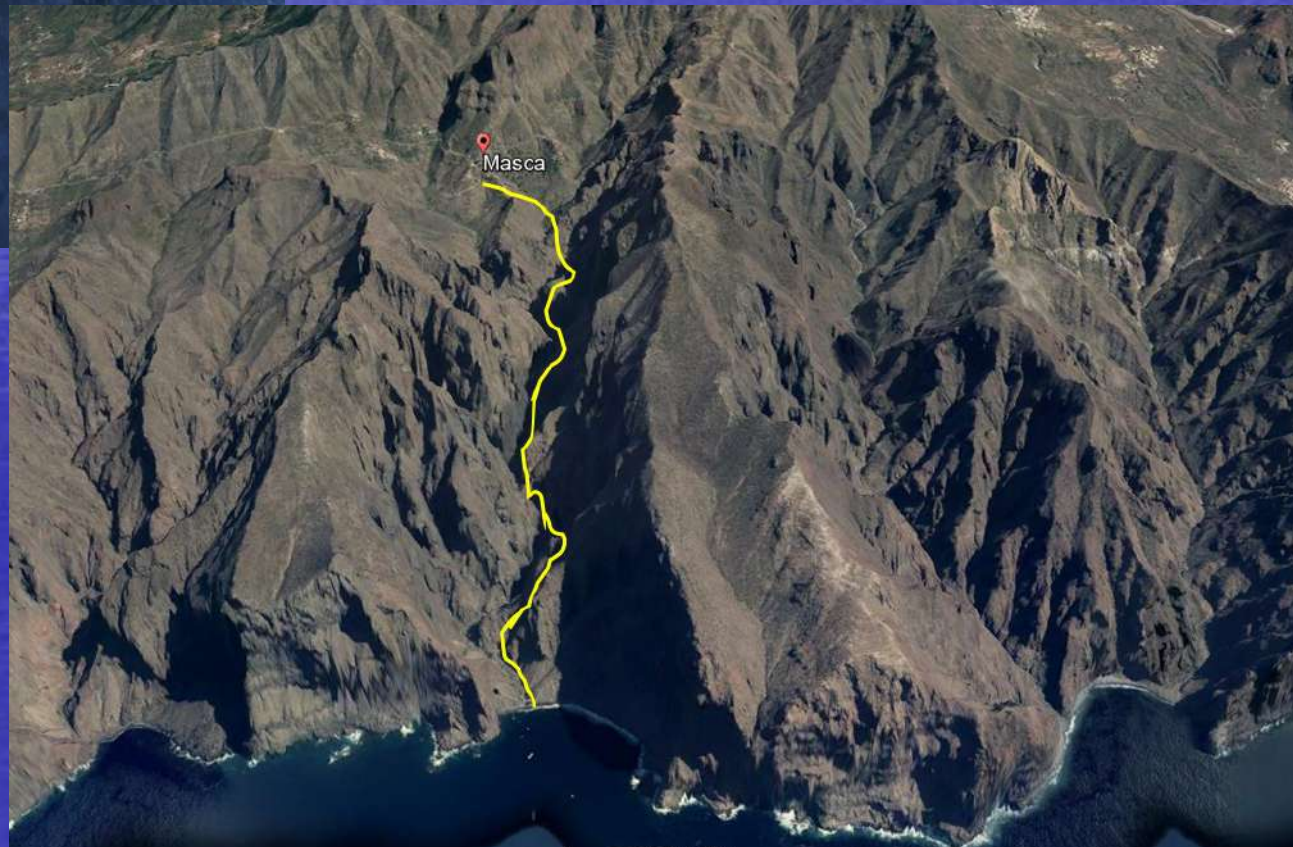
Carrying capacity of the Gorge of Masca (Tenerife Island)

The gorge runs very fitted between high cliffs, with a unevenness of 600 m. and a length of about 4,661 m.

The gorge is used by 2,000 people per day.

Carrying capacity of the Gorge of Masca (Tenerife Island)

Carrying capacity of the Gorge of Masca (Tenerife Island)

In relation to the calculation of the daily physical carrying capacity of the Gorge of Masca, the data applied i

When entering the data for the Gorge of Masca in the previous formula, a value of daily physical carrying capacity of about <u>242 people/day</u> results. This value was <u>exceeded</u> in <u>75% of the sampled days</u>.
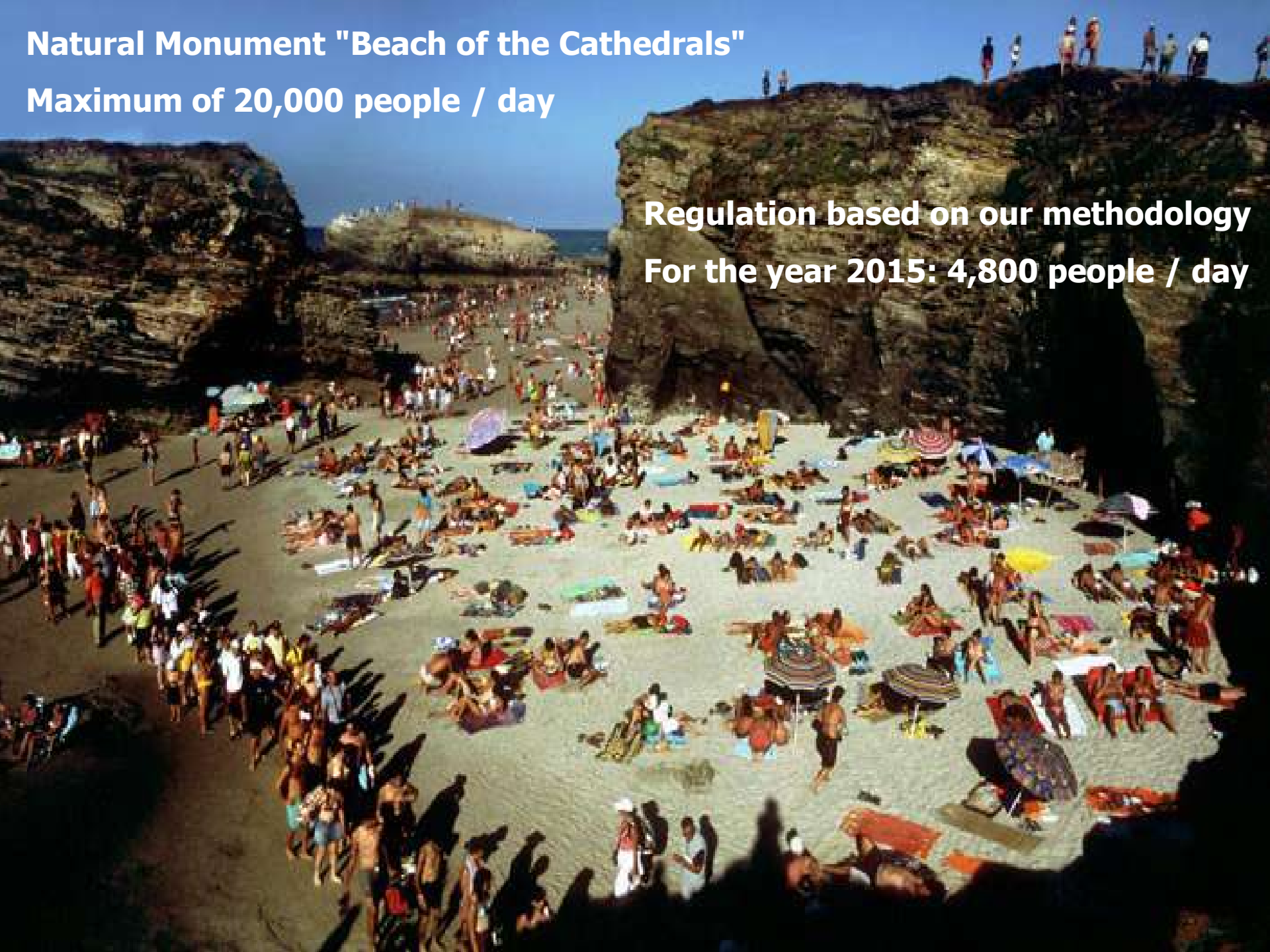
Natural Monument "Beach of the Cathedrals"

Maximum of 20,000 people / day

Regulation based on our methodology

For the year 2015: 4,800 people / day

The concept of carrying capacity

The numbers on the perception of **overcrowding** are obtained by crossing the survey data (% too many people and many people), with the real censuses carried out on people or vehicles, in those same points (correlation analysis)
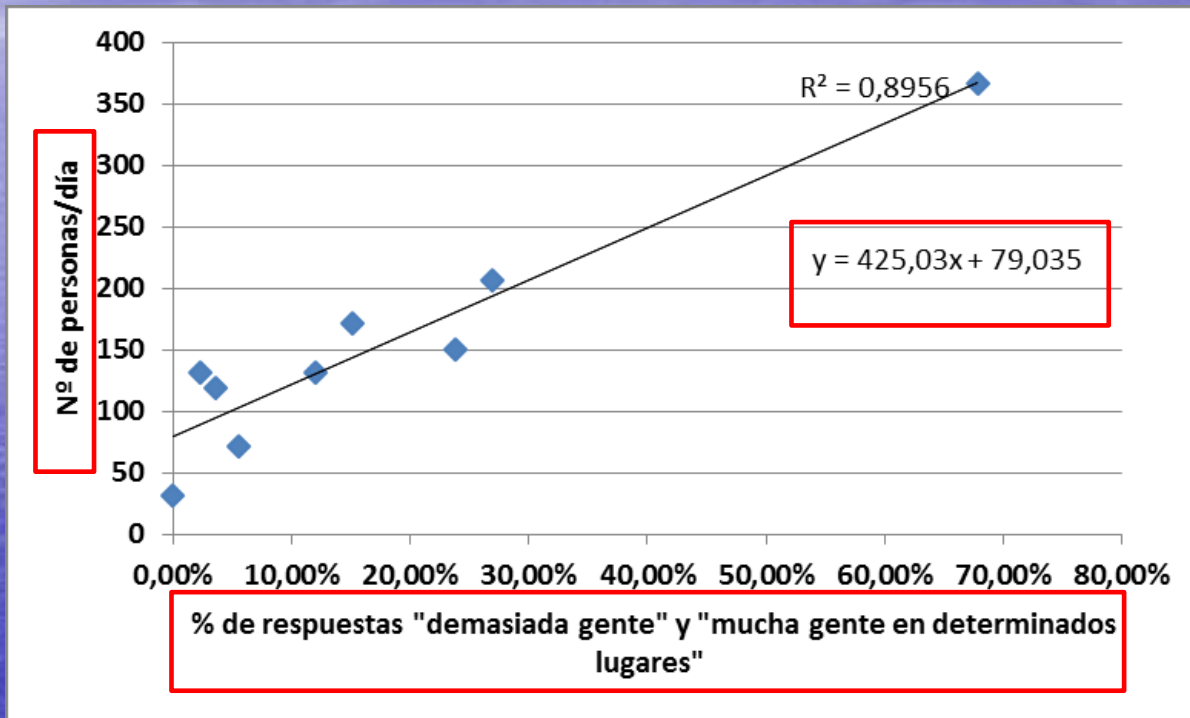
To obtain the approximate data of psychological carrying capacity, the formula of the regression line is replaced by the% of people who perceive "too many people" and "many people in certain places", obtaining the Y value indicated by this maximum value of visitors. In this case (Moncayo trail) = **185 visits / day.**

Carrying capacity of the Gorge of Masca (Tenerife Island)

In the case of Gorge of Masca, there is a positive correlation (R2 = 0.617) between the percentage of people who say that there were "many people in all places + many people in certain places" with the number of people counted during those same days in the censuses carried out every half hour.
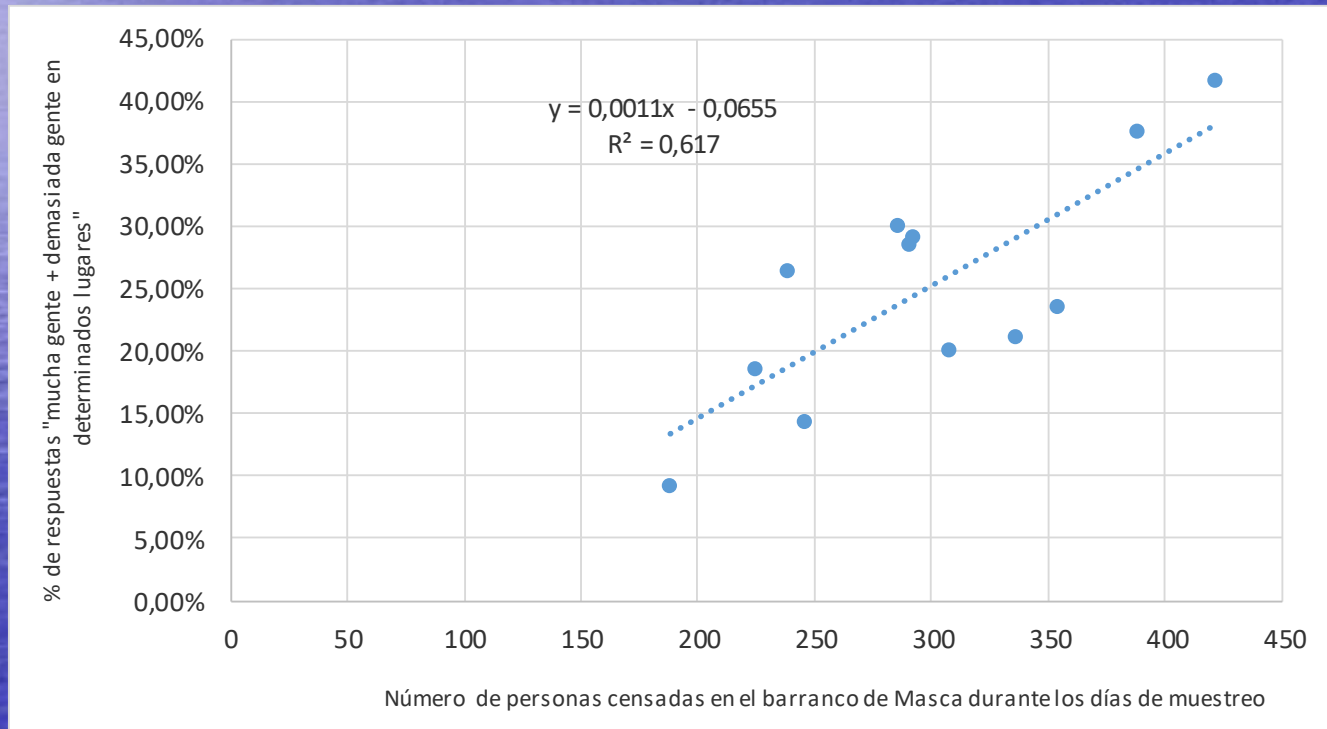
The percentage of people who think they have met "many people in all places + many people in certain places" is 25%, we can determine the psychological reception capacity of the Gorge of Masca around about 286 people per day.

In summary

These values have to be interpreted as reference values and never as a magical or static number, but must be revised, since the impacts caused by visitors are very variable and there are several factors that determine them:

✓ Profile of visitors, time spent in space, seasonality of the visit.

✓ Number of members of the groups

✓ Type of activity, intensity, spatial distribution and mobility in the territory

✓ Activity intensity

✓ Fragility of the medium and ability to absorb impacts (resilience)

In addition, this global value will make sense as long as it is accompanied by sufficient management measures, and a plan to monitor the environmental and social variables that guarantee its application.

THANK YOU

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