

EXECUTIVE SUMMARY



RESEARCH OBJECTIVES

The main focus of this research was to:

- Provide insights into public awareness and understanding of the link between oceans and climate change, and attitudes and behaviours towards the issue
- Understand responses to specific visuals around ocean health and climate change
- Provide guidance on the effective use of images

The findings from this research will be used to:

- Support and guide civil society, media, and scientists on the use of visuals to communicate ocean-climate issues more effectively
- Develop a photography brief for the Climate Visuals 'Ocean Visuals' project



KEY FINDINGS

Across Egypt, Chile and Portugal, the groups did not make links between ocean health and climate change; this was the case during both general discussions around climate change and the ocean, and when groups were shown the images.

Familiar, high profile issues e.g. melting ice caps, pollution/plastic waste were mentioned, making connections to ocean health but, again, not between that and climate change. This indicates that the link between ocean health and climate change is not well-known.

When recognising associations with ocean health in the images, groups did not go that step further to link these to climate change either. This suggests that the images tested do not portray this link strongly enough.

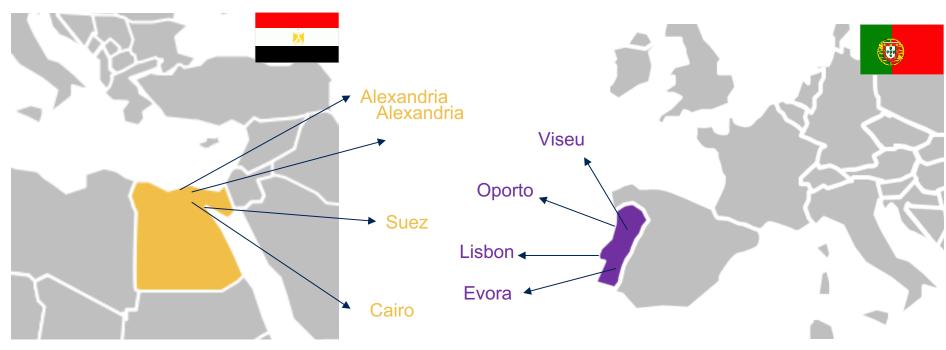
Arguably, complex narratives such as the ocean health – climate change link is low at this stage. At the public's current level of knowledge, it is likely **very difficult to capture this link in a single image** without captions or explanatory text. Given low general awareness of this link, it may be too ambitious at this time to convey this message effectively in a single image.

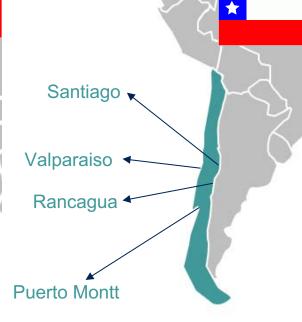
Several recommendations for impactful ocean imagery can be made from an analysis of the images selected as the top four most effective in each country and the associations groups made with them. These broadly concern: portrayal of **damage**; **simple narrative**; **human involvement** or emotional **connection**; and **style and composition**.

METHODOLOGY



FIELDWORK LOCATIONS: EGYPT, PORTUGAL, CHILE







102.3 million



>2,900 km



363.1 billion USD



11.31 million



1,794 km



231.3 billion USD



19.12 million



6,435 km



252.9 billion USD



DESCRIPTION OF THE METHODOLOGY DESIGN

Groups demographics and fieldwork dates

• In-country locations were chosen for range and diversity, giving a broad representation of opinion across each country

EGYPT

G1: Inland & climate concerned (June 13th)

- Region: Cairc
- Adults 19 28
- Female (7), married (2), single (5)

G2: Inland & not climate concerned (June 13th)

- Region: Delta
- Adults 30 37
- Male (7), married (5), single (2)

G3: Coastal & climate concerned (June 14th)

- Region: Alex
- Adults 21 28
- Male (7), all single

G4: Coastal & not climate concerned (June 14th)

- · Region: Suez
- Adults 30 39
- Female (7), all married

PORTUGAL

G1: Inland & climate concerned (June 21st)

- · Region: Viseu
- Adults 33 70
- Male (3), Female (3), with children (5), without children (1)

G2: Inland & not climate concerned (June 22nd)

- Region: Évora
- Adults 21 64
- Male (2), Female (4), with children (3), without children (3)

G3: Coastal & climate concerned (June 20th)

- Region: Lisbon
- Adults 23 63
- Male (2), Female (4), with children (3), without children (3)

G4: Coastal & not climate concerned (June 22nd)

- Region: Oporto
- Demographics: adults 27 65
- Male (3), Female (3), with children (3), without children (3)

CHILE

G1: Inland and not climate concerned (June 22nd)

- Region: Santiago, Rancagua, Talca, Temuco, Concepción pto. Varas, Osorno, Antofagasta, Copiapó, Calama
- Adults 30-55
- Mixed males and females, mid-level income, mixed life cycles (families with kids, single, double income and no kids)

G2: Inland and climate concerned (June 23rd)

- Region: as for Group 1
- Demographics: as for Group 1

G3: Coastal & climate concerned (June 23rd)

- Region: Valparaíso, Viña del Mar., Talcahuano, Antofagatsa, La Serena, Coquimbo, Puerto Montt
- · Demographics: as for Group 1

G4: Coastal & not climate concerned (June 24th)

- Region: as for Group 3
- Demographics: as for Group 1

IMAGES THAT WERE TESTED

Image selection

- Images were selected by Communications Inc in consultation with Climate Visuals and Ipsos.
- Images were chosen to represent a range of ocean-climate themes, a broad geographic spread, and include common variables in ocean-climate imagery (e.g., images with and without humans, featuring both damage/problems and action/solutions).
- Images were sourced from Getty Images and Climate Visuals.





SETTING THE SCENE

Attitudes to ocean health and climate change



PARTICIPANTS ACROSS THE MARKETS HAD MULTIPLE ASSOCIATIONS WITH THE OCEAN, INCLUDING AS A SITE THAT SUFFERS DAMAGE

Importance of ocean and associations

- The ocean is an important resource for humans, providing food, transport and work
- The ocean is a source of entertainment
- The ocean offers peace of mind and tranquillity, having a positive effect on people and the ecosystem

"Don't think much about this subject, I don't have much connection to the ocean, only in terms of holidays"

G2 - COASTAL/LESS CONCERNED, PORTUGAL

"I like being in contact with the sea, it relaxes me, I care for it and I respect it"

G2 - INLAND/MORE CONCERNED, CHILE

"Without oceans there is no life, because they generate oxygen"

G4 – INLAND/MORE CONCERNED, CHILE

"It [the ocean] is important for tourism, in the end it's what sells" G3 - COASTAL/MORE CONCERNED, CHILE

- In Egypt, climatic concerned groups (coastal and inland) linked the ocean with the preservation of fish stocks and purifying the atmosphere, whereas less climatic concerned groups (coastal and inland) linked the ocean freshness, ease of mind, and quietness.
- In Portugal, groups associated the ocean with cross-continental travels (for both leisure and trade). Further, younger participants associated the ocean with holidays and did not indicate any link with activities during other seasons.
- In Chile, coastal groups linked the ocean to the potential of pollution and oil spillages. Inland groups perceived the ocean as a source of leisure, whereas coastal groups think of the ocean as a source of work.



ACROSS MARKETS, CLIMATE CHANGE WAS GENERALLY UNDERSTOOD AS A CRITICAL ISSUE – OF THE FUTURE

Importance, feelings and associations of climate change

- Climate change has altered weather patterns and increased temperature, which threatens habitats
- Climate change is a global issue, with a knock-on effect on the sea level
- Climate change is an issue of the future

"We think we have nothing to do with [climate change], but we are the ones consuming products that pollute the oceans"

G2 - COASTAL/LESS CONCERNED, PORTUGAL

"You say the words climate change and it is not something I know about"

G1 - INLAND/LESS CONCERNED, CHILE

"Man is messing with the natural balance but these changes are not good"

G1 - COASTAL/MORE CONCERNED, PORTUGAL

"I worry more in terms of my children and grandchildren, as I will no longer be here"

G2 - COASTAL/LESS CONCERNED, PORTUGAL

- In Egypt, participants associated climate change with three key factors: changing seasons (e.g., the weather during summer/winter and spring/autumn), agricultural differences (e.g., climate change influences the crops), and diseases (e.g., the flu).
- In Portugal, older participants were more concerned for the climate than younger participants. More generally, participants linked climate change to human activity and believed it will likely result in inland cities becoming overpopulated. Overall, more climate concerned groups described engaging in more sustainable behaviour (e.g. recycling).
- In Chile, participants recognize climate change as an issue but have other priorities to deal with, such as the economic crisis. Overall, inland cities seemed less aware of the issue than coastal cities.



YET THE LINK BETWEEN OCEAN HEALTH AND CLIMATE CHANGE REMAINED LARGELY VAGUE

Key points on climate change and the ocean

- Participants linked climate change to familiar issues such as increased water and atmospheric temperature, and sea level rise
- Climate change is threatening coastal areas and the extinction of underwater species
- Participants were not fully aware of the link between climate change and the ocean, or the scale of this impact.

"Now the sea is doing more damage than before, it is more rough, there are more winds, more storms, we hear more about beaches destroyed by the sea"

G1 - COASTAL/MORE CONCERNED, PORTUGAL

"Everything is upside down – the summer is cold"

G2 – COASTAL/LESS CONCERNED, PORTUGAL

"It's all a cycle: pollution affects temperature rises, rainfall, and drought"

G4 - COASTAL/LESS CONCERNED, CHILE

- In Egypt, there was discussion about the loss of marine biodiversity. The more climate concerned groups drew out a link between climate change causing global warming and the effect of global warming on fish wealth and sea-water level. In the less climatic concerned group opinions were mixed there were those who believed that climate change alters the weather around the ocean, whereas there were others who could not relate climate change and the ocean.
- In Portugal, groups drew very vague links between climate change and the ocean, mentioning that climate change may cause fish migration towards colder waters. There were also some mentions of extreme weather events such as storms and cyclones. The coastal groups were slightly more concerned about the sea level rising than the inland groups.
- In Chile, groups associated climate change with an increased chance of flooding, caused by the increased sea level rise due to the melting ice caps. Coastal groups showed greater concern about this than inland groups.



HIGHEST RANKED IMAGES

3

Thematic analysis



SEVEN IMAGES WERE SELECTED AS THE IMAGES MOST ASSOCIATED WITH CLIMAYE CHANGE ACROSS THE COUNTRIES



































SEVERAL COMMONALITIES EMERGED THAT MAY SUGGEST WHY THESE WERE CHOSEN



Most of the images show some sort of **damage or pollution**, particularly to habitats. Notably, the top 4 selections consistently included one or both of the images included in the test set that showed melting ice caps.



The images either feature humans or animals that can be anthropomorphised, i.e. are humanised and therefore are relatable and emotional.



Images tended toward being darker than those not selected, with some appearing to be desaturated e.g. image 16 & 17



Several were seen by groups to be showing some sort of action being taken e.g. political action in images 2 & 12, image 17 was felt to show adventure or action to stop ice melting



THREE IMAGES WERE SELECTED MOSTLY COMMONLY ACROSS THE THREE COUNTRIES – AGAIN WITH KEY SIMILAR TRAITS









THEY ESTABLISH A SIMPLE, CLEAR NARRATIVE WITHIN THE IMAGE

The images tend to rely on the 'rule of three' to create a simple story

As a result, they all hint at causality within a single image, showing consequences of some form of environmental harm. Groups across the three countries noted the importance of showing before/after or cause/effect in imagery.



Polar bear Sea Ice sheet

Consequence: animals suffering due to humaninduced climate change melting ice caps



Tanker Ocean Oil spill

Consequence: oil spill from tanker polluting the ocean



Beach Plastic cup Turtle

Consequence: marine life struggling through plastic pollution caused by humans



RELATED TO NARRATIVES, THE IMAGES ALSO DEAL WITH FAMILIAR ISSUES

- Arguably, a polar bear on melting ice is the archetypal climate change image, familiar to many people.
- There have been several high profile oil spills in recent years e.g. Deep Water Horizon.
- Plastic waste and pollution of our beaches and oceans has become more salient in recent years, particularly given the 'Blue Planet' effect.



THERE IS HUMAN INVOLVEMENT OR A HUMAN CONNECTION

Two of the three images rely on creating an emotional, human connection – while the other prominently features a human artifact.



Mammals can be easily anthropomorphised by audiences.

For example, groups in Egypt and Portugal associated this image with offspring and future generations, desperation / despair and motherly protection of the adult over the cub.



Human technology (the tanker) and the consequences of its activities are central in this image.

For example, groups in Portugal and Chile associated this image with **human error / destruction** and our responsibility for damage. For groups in Egypt, it evoked **fear**.



Baby animals introduce a 'cuteness' factor and evoke strong emotion. Plastics products / waste are common part of human lives.

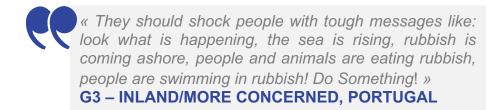
For example, groups in Egypt and Portugal associated this image with risk, guilt, human irresponsibility and animals' vulnerability to our carelessness.



THE IMAGES ARE DESATURATED – CREATING A MORE SERIOUS, NEGATIVE TONALITY

Participants suggested the most effective ocean imagery *should* be **negative** in tone, showing some element of **harm** to the environment in order to prompt action.

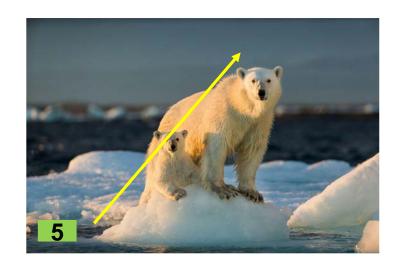
This was noted in groups in Portugal and Chile in particular. In Chile, images 5 and 14 were argued by participants to be the images that most closely linked ocean health and climate change because they clearly show environmental harm. In Portugal, participants favoured negative, shocking images to generate action.



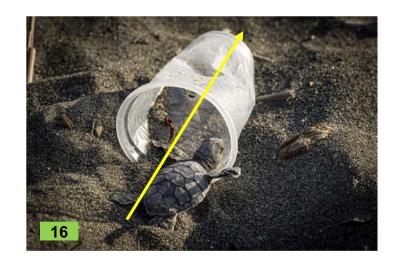


IMAGES ALSO FOLLOW STRONG AND SIMPLE COMPOSITION STRUCTURES

The subject / action is centred in the image. The eye also follows a simple line in each.







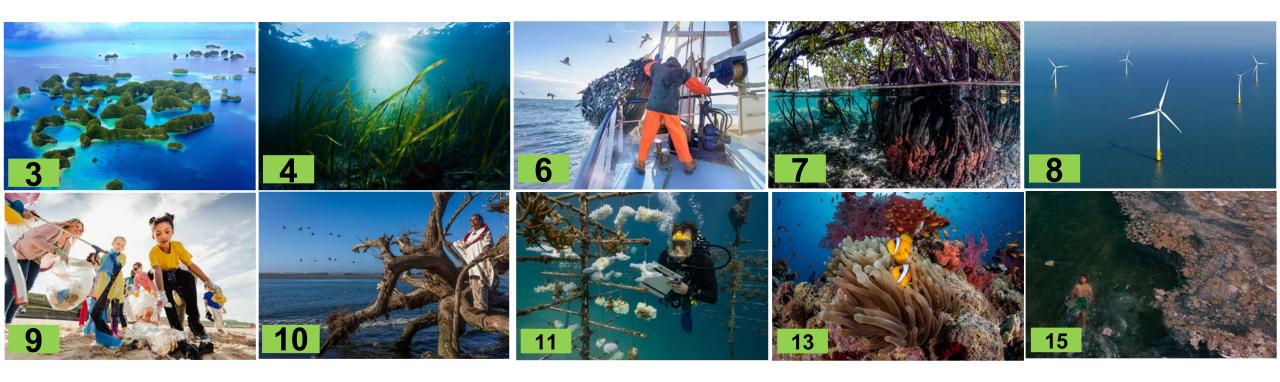


WHAT MAY NOT WORK

Analysis of unranked images



TEN IMAGES WERE NOT SELECTED AT ALL AS THE TOP IMAGES ACROSS THE COUNTRIES





SEVERAL COMMONALITIES EMERGED, SUGGESTING WHY THESE WERE NOT CHOSEN



Images are colourful and bright, i.e., too positive to suggest a problem



Lack of clearly understood damage or consequences



Images did not induce strong emotions



Too vague or **abstract** – images 11 and 15 open to multiple interpretations



No clear narrative, or it is difficult to draw out within the image, e.g., Images 3, 4 & 8.

These commonalities are seen especially among images of underwater species, which can be pleasing to look at (due to the colours and brightness) but do not have a clear narrative of damage and consequences (4, 7 & 13).



CONCLUSION



CONCLUSIONS

Across Egypt, Chile, and Portugal, groups struggled to draw the link between ocean health and climate change.

Familiar, **high profile issues** such as melting ice caps, protecting coral reefs, rising sea levels, and pollution/plastic waste were mentioned both in warm-up discussions and image association exercises.

However, these ocean health issues were not directly linked by the groups to climate change and vice versa. This indicates that the link between the two is not well-known.

Even when recognising associations with ocean health issues in the images, participants did not then link these to climate change. This suggests that the images tested **do not portray this link strongly enough** – though it is important to consider that such a relatively complex narrative is **very difficult to capture in a single image** without captions or explanatory text.



APPENDIX





IMAGE 1: VIEWS ON ASSOCIATIONS

Initial views on associations

- Natural disaster; storm; hurricane; tornado
- Flooding; tsunami
- Emotional responses: fear; sadness



G1 - INLAND/LESS CONCERNED, CHILE

"Loss of home and town, the need to leave, to start elsewhere"

G4 - INLAND/LESS CONCERNED, PORTUGAL

- People in Egypt associated the image with the remaining of a recycling factory, very similarly to groups in Chile which linked the image to pollution
- Participants in Portugal attributed the observed destruction to the loss of people and livelihoods





IMAGE 2: VIEWS ON ASSOCIATIONS

Initial views on associations

- At a first glance it appears as a sport; rowing; leisure
- Activism; protesting pollution
- Oil rig; water contamination



G3 - COASTAL/ MORE CONCERNED, CHILE

"I focused on the people who are trying to do something, fighting to get the problem solved" **G2 - COASTAL/LESS CONCERNED, PORTUGAL**

- Participants in Portugal linked the image with a risk of water contamination and public health.
- The more climate concerned coastal group in Chile thought the image represented a united front against big companies polluting the waters





IMAGE 3: VIEWS ON ASSOCIATIONS

Initial views on associations

- Holiday destination; vacation
- Paradise; mother nature
- Purity; peacefulness; absence of pollution

"Sounds like the perfect place for a holiday" G3 - INLAND/MORE CONCERNED, PORTUGAL

"It's paradise, beauty... I'm thinking about vacations and relaxation"

G3 - COASTAL/MORE CONCERNED, CHILE

Key findings within countries or demographic groups

 The more concerned groups in the coastal areas in Chile expressed concern over potential flooding and the need to preserve this area.

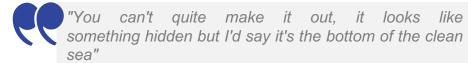




IMAGE 4: VIEWS ON ASSOCIATIONS

Initial views on associations

- Beautiful landscape
- Calming; peaceful; ease of mind
- Clean water; healthy



G2 - COASTAL/LESS CONCERNED, PORTUGAL

"It looks like grass - I immediately thought of allergies"

G3 - COASTAL/MORE CONCERNED, CHILE

- Participants in Egypt thought of coral reefs.
- Participants in Portugal thought of the impact of see-weeds and temperature rising
- In Chile, the more climatic-concerned segment associated the image with a flooded meadow





IMAGE 5: VIEWS ON ASSOCIATIONS

Initial views on associations

- Melted ice caps; future
- Extinction of species; adaptation of bears; motherhood
- Rising temperatures



"Risk / destruction of their habitat"

G2 - COASTAL/LESS CONCERNED, PORTUGAL

- Participants in Egypt further associated the image with winter
- Participants in Portugal expressed concerned over migration of species near urban areas
- The groups in Chile emphasised the idea of motherhood, and reported feeling rage and powerlessness





IMAGE 6: VIEWS ON ASSOCIATIONS

Initial views on associations

- Unsustainable fishing; abuse; irresponsibility
- Over-exploitation; greed



"Trawling wipes out everything, that's the business's ambition"

G2 – INLAND/MORE CONCERNED, CHILE

- Participants in Egypt formed positive associations with the image, by referencing a fishing trip and the wealthy ocean.
- The inland and concerned group in Portugal associated the image with resource scarcity
- Groups in Chile mentioned destroying the natural equilibrium

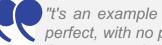




IMAGE 7: VIEWS ON ASSOCIATIONS

Initial views on associations

- Beautiful
- Clear water; natural landscape; river



"t's an example of a river like the one in the Amazon, perfect, with no pollution, limpid"

G4 - INLAND/LESS CONCERNED, PORTUGAL

"It looks like the surface of the land but under the water" **G2 - INLAND/MORE CONCERNED, CHILE**

- Participants in Egypt associated the image with snorkelling and diving.
- Participants in Portugal compared the image to the Amazon, and spoke about ecosystem diversity, and how tourism could cause a potential destruction to this landscape
- The inland groups in Chile associated this image with a flooded scenery

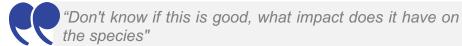




IMAGE 8: VIEWS ON ASSOCIATIONS

Initial views on associations

- Renewable energy; using the wind; electricity
- Environmental sustainability; protecting the environment



G3 - INLAND/MORE CONCERNED, PORTUGAL

"It's innovation, a renewable power source; it's a solution"

G1 - INLAND/LESS CONCERNED, CHILE

- In Portugal, groups associated this image with solutions emerging from human creativity
- Participants in Chile expressed concern for the potential pollution that windmill installation could cause





IMAGE 9: VIEWS ON ASSOCIATIONS

Initial views on associations

- Polluted beaches; microplastics
- Cleaning up the ocean; protecting environment
- Positive impact/changing attitudes by teaching children and raising ecological awareness; creating a better future



"Education, pollution, litter on the beaches, the positive side of teaching children with adults to set an example, encourage them in the future not to litter"

G4 – INLAND/LESS CONCERNED, PORTUGAL

"It's a cooperative action to rescue, clean up, and stop climate change"

G4 – COASTAL/LESS CONCERNED, CHILE

Key findings within countries or demographic groups

 People from coastal cities in Chile who were less concerned about climate change more notably reacted with tenderness towards the presence of children in the image.





IMAGE 10: VIEWS ON ASSOCIATIONS

Initial views on associations

- Peace; balance; freedom; meditation
- Flooding; tsunamis; storms; destruction; damage of the forests by the seas
- Indigenous culture; ancestral wisdom; a culture that is less damaging to nature;
 connection / balance between land, man and sea that has been lost

((

"That person is connected with the land and they have different ideas to us"

G1 - INLAND/LESS CONCERNED, CHILE

"Peace, indigenous peoples, they kind of look like they're contemplating nature"

G3 - COSTAL/MORE CONCERNED, CHILE

Key findings within countries or demographic groups

 Groups in Egypt did not perceive any links with indigenous communities in this image





IMAGE 11: VIEWS ON ASSOCIATIONS

Initial views on associations

- Conservation; documenting marine life/species
- Scientific research to protect coral
- Lack of coral; restoration; slowing down climate change

Key findings within countries or demographic groups

- In Egypt, both segments interpreted the image as depicting an individual studying and documenting. Words associated with the image included 'diving', 'exploring', 'documenting' and 'research'.
- In Chile, people from coastal cities in particular interpreted the image as an effort to restore coral reefs, and this slow or prevent climate change



G4 – INLAND/LESS CONCERNED, PORTUGAL

"It's like a study, researching corals, focusing on improvement or slowing climate change"

G4 – COSTAL/LESS CONCERNED, CHILE





IMAGE 12: VIEWS ON ASSOCIATIONS

Initial views on associations

- Concern; unity; countries coming together to protect the oceans
- Looking for a solution
- Scepticism about expertise (politicians, not scientists) or effectiveness; inaction

"There are targets that are never met and even if there are fines, these do not compensate for the destruction that has resulted in the ocean"

G1 – COASTAL/MORE CONCERNED, PORTUGAL

"The great leaders of every country, they have a lot of power to change this"

G2 – INLAND/MORE CONCERNED, CHILE

- In all countries the group in the image are perceived to be politicians. In Chile, people in coastal cities feel that this group is a barrier to action, given their association of politics with indecisiveness and ineffectiveness
- In Egypt, the image elicited the feeling of individuals coming together to solve an issue that is affecting multiple countries. Concepts associated with this image included 'conference', and 'different nationalities coming together to solve a problem'.
- In Portugal, younger people were notably sceptical about political action.





IMAGE 13: VIEWS ON ASSOCIATIONS

Initial views on associations

- Beauty; purity; healthy; colour; coral reefs
- Holidays; comfort; Red Sea
- Finding Nemo



"Lots of species and colors and seaweeds that you can see all over the seabed"

G2 - INLAND/MORE CONCERNED, CHILE

"It's nature, it's life, it's beautiful"

G4 – COASTAL/LESS CONCERNED, CHILE

- In Egypt, groups who were more concerned about climate change were more receptive to this image
- Chile formed associations with the film Finding Nemo





IMAGE 14: VIEWS ON ASSOCIATIONS

Initial views on associations

- Human error; human responsibility; human-induced destruction of ecosystems
- Death of species; impact ocean's purity
- Powerlessness; anger; fear

Key findings within countries or demographic groups

Associations with this image were similar across countries and demographic groups



G3 - COSTAL/MORE CONCERNED, CHILE

"Disaster and the price we pay for having access to oil, an oil spill that will never go away"

G2 - COASTAL/LESS CONCERNED, PORTUGAL





IMAGE 15: VIEWS ON ASSOCIATIONS

Initial views on associations

- Contamination; man-made pollution; destruction of species
- Dirtiness; disease; faeces; disgust
- Water therapy; meditation (Egypt only)

Key findings within countries or demographic groups

 In Egypt, there were mixed messages emerging from the groups. Some people expressed associations around pollution, echoing themes emerging from Chile and Portugal. However, others associated the image with therapy and meditation



"It seems like an invasion of space, there's mold or waste, dirtiness in the sea"

G2 - INLAND/MORE CONCERNED, CHILE

"Total pollution, diseases of people and marine animals, the idea that the ocean is infinite and that you can do whatever you want is the fault of individuals but very much the fault of companies"

G3 – INLAND/MORE CONCERNED, PORTUGAL





IMAGE 16: VIEWS ON ASSOCIATIONS

Initial views on associations

- Pollution; litter / plastic and its impact on marine life
- Human irresponsibility; guilt; risk
- Sadness; vulnerability of animals to human carelessness

"We make the ocean our rubbish dump, people should be fined if they litter in the sea or on beaches"

G3 – INLAND/MORE CONCERNED, PORTUGAL

"I feel for it; the irresponsibility of people who go there and leave litter"

G4 – COASTAL/LESS CONCERNED, CHILE

Key findings within countries or demographic groups

 In Chile, groups were familiar with this kind of image i.e., plastic waste in the ocean threatening animals, and to some extend, also felt responsible.
 Feelings associated with the image include guilt, sadness and frustration.

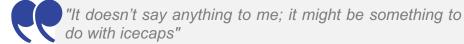




IMAGE 17: VIEWS ON ASSOCIATIONS

Initial views on associations

- Melting ice caps; rising sea levels; flooding
- Scientists; taking action to stop melting; surviving; adapting; concern
- Exploration; hunting; adventure



G4 – COASTAL/LESS CONCERNED, CHILE

"Beyond looking at the problem of unfreezing icebergs"

G2 – COASTAL/LESS CONCERNED, PORTUGAL

- In Chile, groups mentioned hunting and adventure
- In Egypt, groups who were more concerned about climate change associated this image with melting ice caps. Groups who were less concerned saw stronger associations with survival/adaptation



