

A close-up photograph of several blueberries, some in sharp focus and others blurred in the foreground and background. The berries are a deep blue color with a fine, white, powdery coating (bloom) on their surface. The background is a soft, out-of-focus green, suggesting the presence of leaves.

THE SUSTAINABILITY CHALLENGE

Round Table Discussion

IBO SUMMIT 2023 *Lublin, 3-6 July 2023*

Who is participating.....

- **Magdalena Borzęcka**



- **Mirosław Korzeniowski, PhD**

AGROEKOTON Association
Sustainable Horticulture
Core Team, Team Leader



- **Mario Steta**

Director of Operations
Driscoll's EMEA



- **You**



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ETHICS

John D. Rockefeller

Industrialist (1839-1937)

**“Next to doing the right thing
the most important thing is to let people know
you are doing the right thing”**

RISK

Warren Buffett

Investor (1930-)

“Risk comes from not knowing what you are doing”

Water war: Why drought in Spain is getting political

Brussels, Madrid and Andalusia are embroiled in a fight over the drought-stricken Doñana National Park.

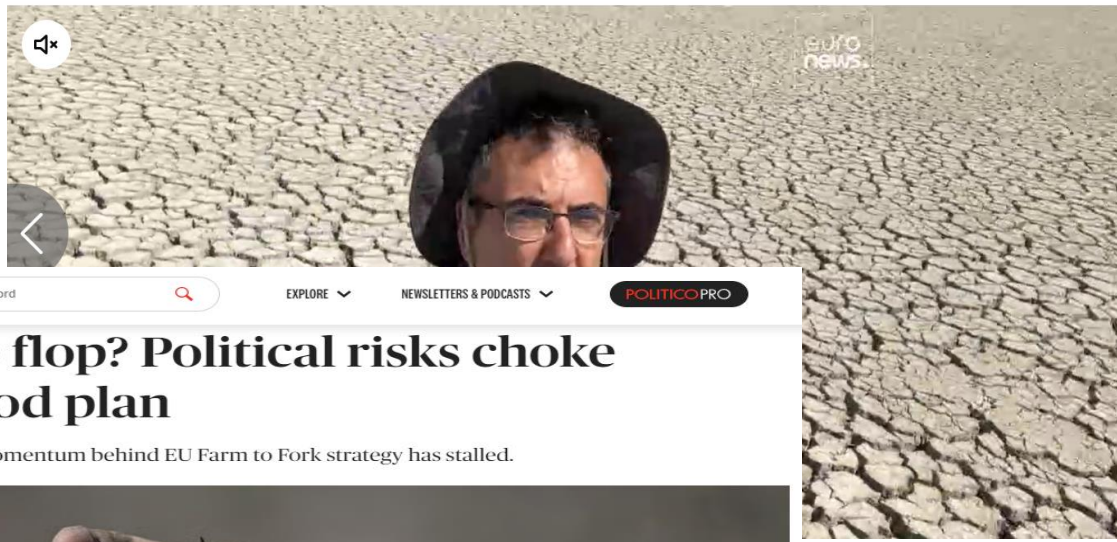


en Tracking water thieves in southern Spain x +

euronews.com/2023/05/25/tracking-water-thieves-in-southern-spain

euronews. My Europe World Business Sport Green Next Travel Culture Video | Programmes

Tracking water thieves in southern Spain



From farm to flop? Political risks choke EU's green food plan

'Sensitive' document suggests momentum behind EU Farm to Fork strategy has stalled.





La crisis hídrica redefine la economía mundial

Controlling the weather to tackle global warming demands regulation, says EU

ALICE HANCOCK — BRUSSELS

A contested technology that involves manipulating the weather to fight climate change has appeared on the radar of EU regulators for the first time.

The European Commission will call for international efforts next week to assess “the risks and uncertainties of climate interventions, including solar radiation modification” and for research into how to regulate it globally, according to a draft seen by the Financial Times.

The statement will be the first time that a national or regional governing

aerosol injection, which involves flying a plane 20km-25km above the Earth shooting out micron-sized particles that reflect the sun.

Aircraft able to carry such loads at that height have not yet been built and the process would have similar results to volcanic eruptions, which can lead to temporary global cooling. Other methods being researched include thinning cirrus clouds to allow more infrared rays out and launching sunshades into space.

The EU document, which is not legally binding and could change before publication, shows the extent of concern that humanity will not be able to

encompasses different techniques for adjusting the sun’s rays — the UN Environment Programme described the technology as the “only” way to cool the planet in the short term.

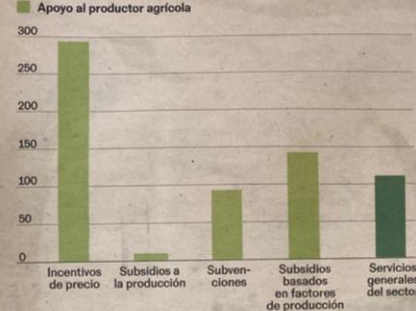
However, the authors warned, several factors including costs that could run into “tens of billions of US dollars per year” made large-scale deployment “unwise”.

Interfering in the globe’s natural climate could damage the ozone layer, lead to geopolitical tensions and, if suddenly stopped, cause a sudden recurrence of global warming that would be more dangerous, the report warned.

La economía del agua

Los Gobiernos subvencionaron la agricultura con 110.000 millones de dólares al año entre 2013 y 2018

En miles de millones de dólares



Un bien escaso

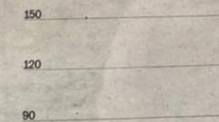
En %
Sólo el 2,5% del agua del planeta es dulce

El 97,5% del agua en la tierra es agua de mar

Desalinización

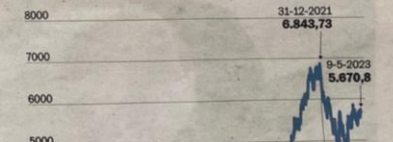
Una fuente continua de disputas

Conflictos mundiales por el agua



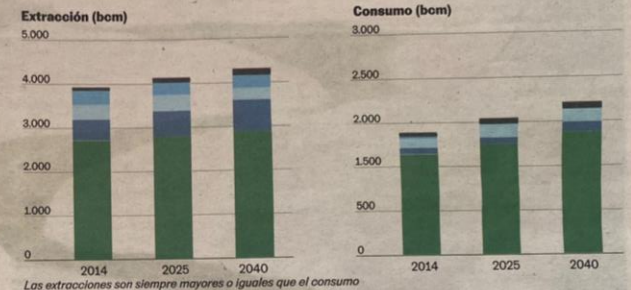
Un negocio que cotiza al alza

Índice S&P Global Water integrado por las 100 mayores compañías en el negocio del agua. En puntos



Consumo mundial en el sector energético por tipo de combustible (escenario de desarrollo sostenible, 2016-2030)

■ Producción de energía primaria ■ Generación de energía ■ Industria ■ Municipal ■ Agricultura



PORTUGAL - ZAMBUJEIRA

AMBIENTE



A "imensidão" de habitats na costa do Sudoeste alentejano está coberta de plástico



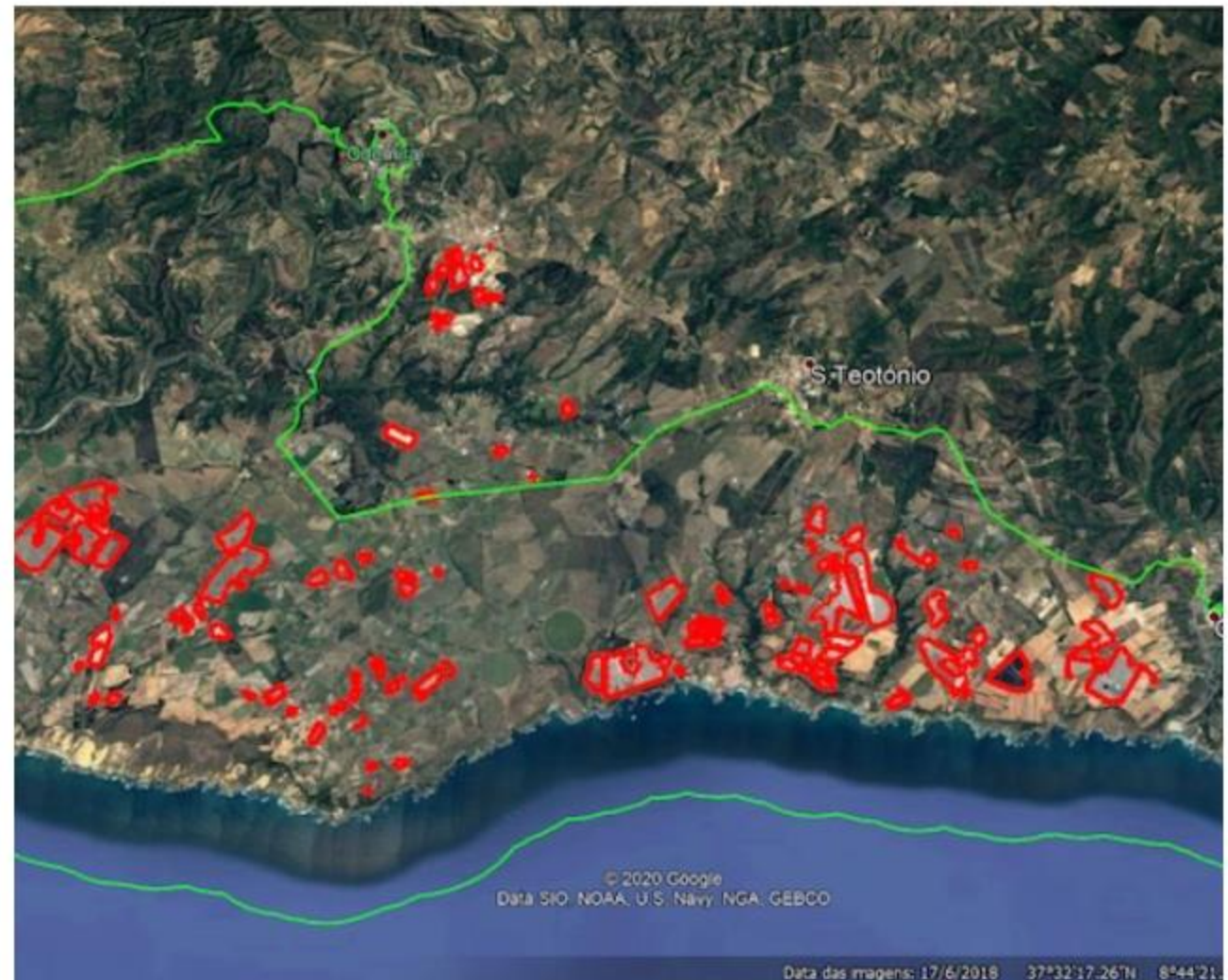
SOURCE: <https://www.publico.pt/2023/05/13/azul/noticia/imensidao-habitats-costa-sudoeste-alentejano-coberta-plastico-2049454>

Greenhouses by the coast in Alentejo, Portugal [Marta Vidal/Goncalo Ribeiro/Al Jazeera]
SOURCE: <https://www.aljazeera.com/features/2022/10/11/agribusiness-depletes-soil-water-resource-in-portugals-alentejo>

Case study from University of Utrecht

Assignment 4: Interviews
Parque Natural do
Sudoeste Alentejano e
Costa Vicentina (PNSACV)

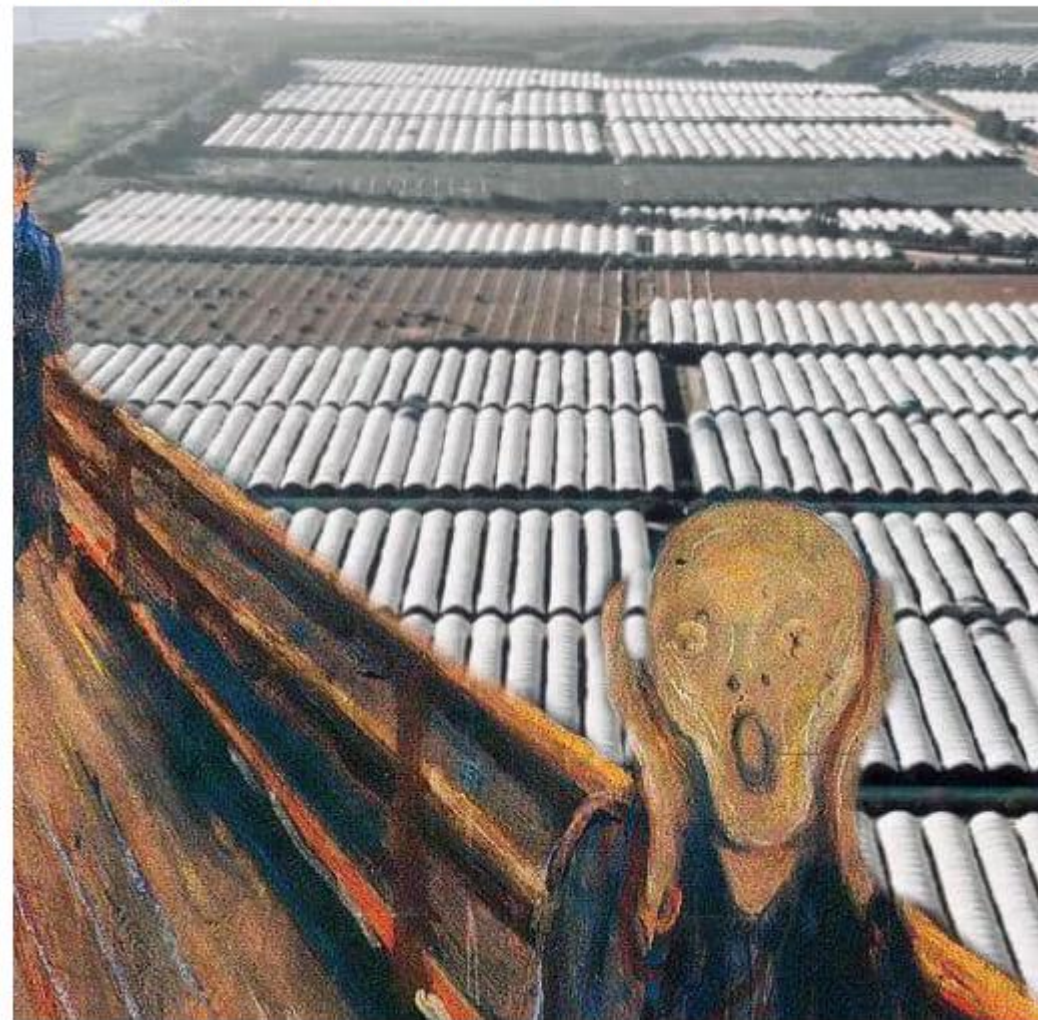




Drought in the Sado and Mira basins



Red fruit greenhouses at PNSACV



Juntos pelo Sudoeste, Facebook page, 2023

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The berry/avocadoes/olive oil demand have transformed Portugal as plantations have sprung up in recent years.

The berry market has particularly transformed Portugal due to its intensity. An already dry region is quickly using up its water supplies.

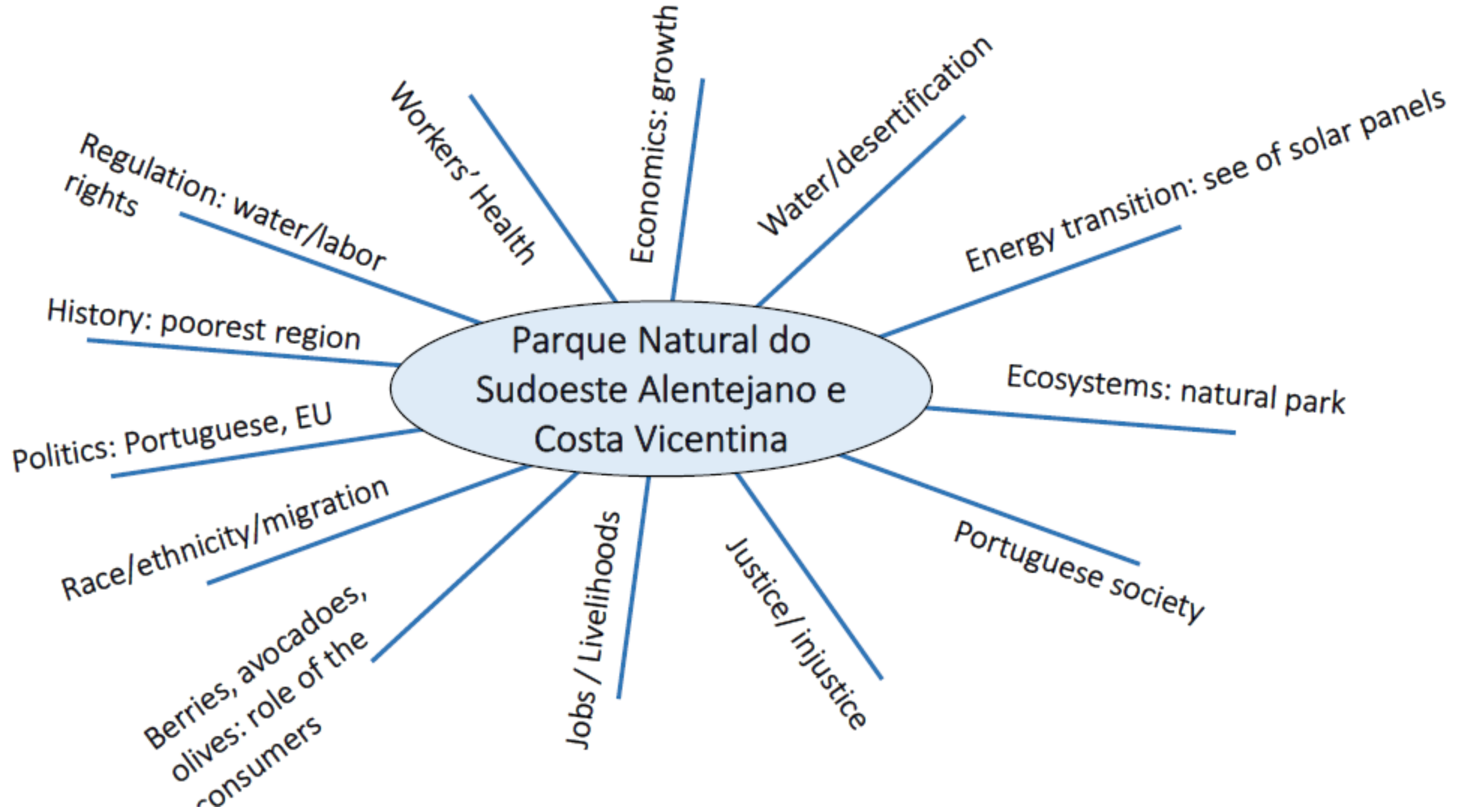
Conditions for workers are problematic: There are large amounts of temporary labor available to help in the farming (packing also creates jobs).



The Santa Clara reservoir is drying up. Some 90 percent of the water is used for agriculture, but it is rapidly emptying out.

Foto: Gonalo Fonseca /
DER SPIEGEL

What issues do you see in this case?



Some thoughts and questions

From Food Safety

.....to Social Compliance

.....and now Environment

Sustainability cannot be approached as a competitive advantage, other than maybe market/consumer positioning

The frequent argument about what is more or less sustainable:

How do we measure the impact?

Some thoughts and questions

- What is Sustainability?
- Is it about us? Impact of the horticultural industry
- But.....do we really understand our own impact?
- What are the implications?
 - ✓ Policy
 - ✓ Legal? *Example of no single use plastics; no drain water in NL by 2026*
 - ✓ Consumers?
 - ✓ **Do what is right?**
- Who is acting? Some examples
- What should IBO and its members commit too?

What is “Sustainability”

- *From Oxford:*
 - The ability to be maintained at a certain rate or level (“the sustainability of economic growth”)
 - Avoidance of the depletion of natural resources in order to maintain an ecological balance (“the pursuit of global environmental sustainability”)
- *From the UN:*
 - In 1987, the [United Nations Brundtland Commission](#) defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.”
- *University of California Los Angeles:*
 - In the [charter](#) for the UCLA Sustainability Committee, sustainability is defined as: “the integration of environmental health, **social equity** and economic vitality in order to create thriving, healthy, diverse and resilient communities for this generation and generations to come. The practice of sustainability recognizes how these issues are interconnected and requires a systems approach and an acknowledgement of complexity.”

- We can all agree it is about **resources**:
 - Water
 - Soil, substrate
 - Biodiversity
- **Pollution** (pesticides, plastics, greenhouse gas emissions, etc)
- Is it about **using less** only?
- About using “organic” tools into “conventional” production
- What about being sustainable meaning “**doing more berries....blueberries....with less resources**”
- It is about **people**

'Envejece' la mano de obra del campo mexicano

In 2022 29.3% of agricultural workers were over 65 years in Mexico

Nallely Hernández
Cd. de México (06 junio 2023).-
05:00 hrs



Is it about us? Impact of the horticultural industry

SOUTH OF SPAIN - ALMERIA



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PORTUGAL - ZAMBUJEIRA



SOURCE: Google Earth

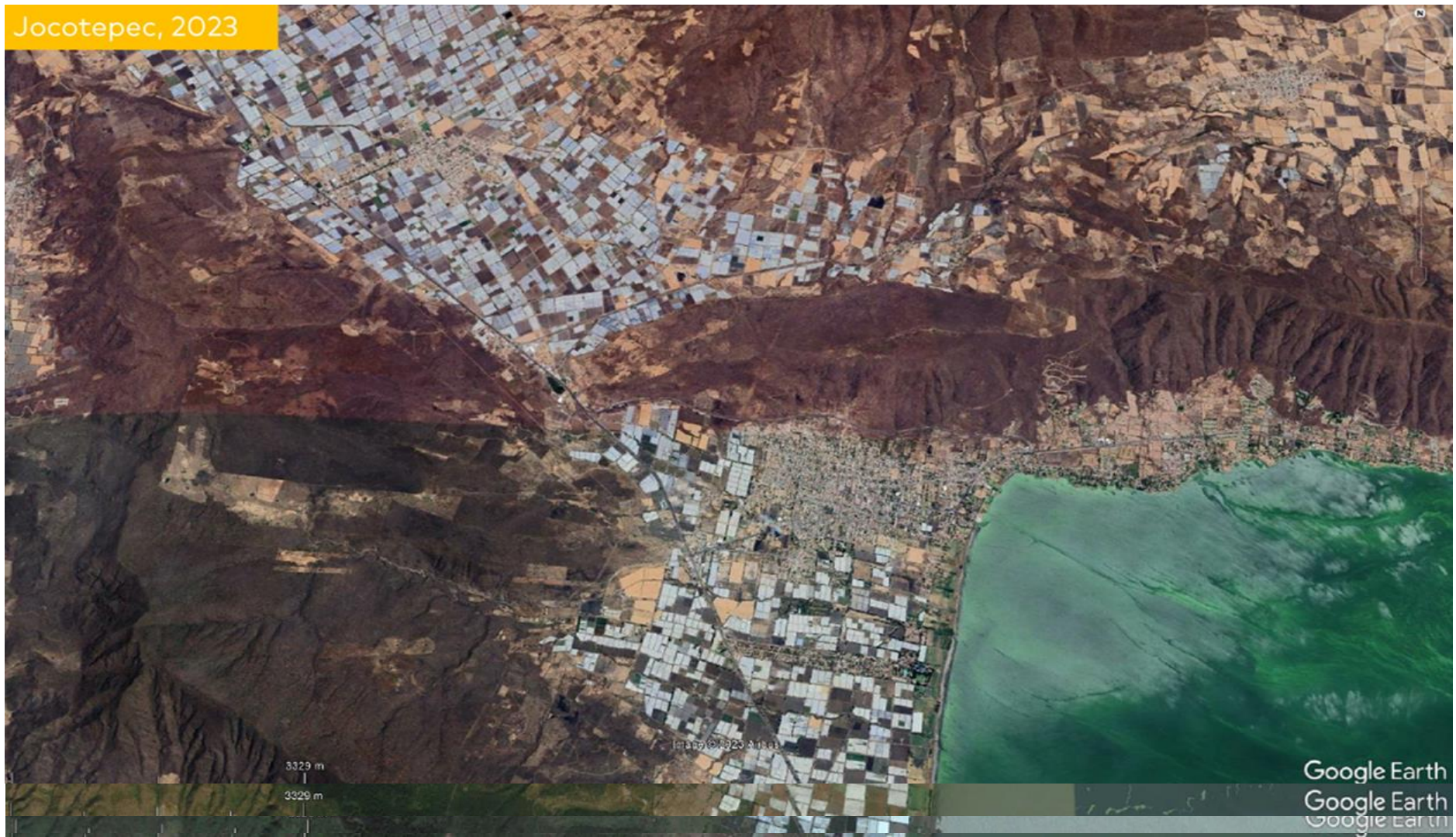
PORTUGAL - ZAMBUJEIRA



SOURCE: Google Earth

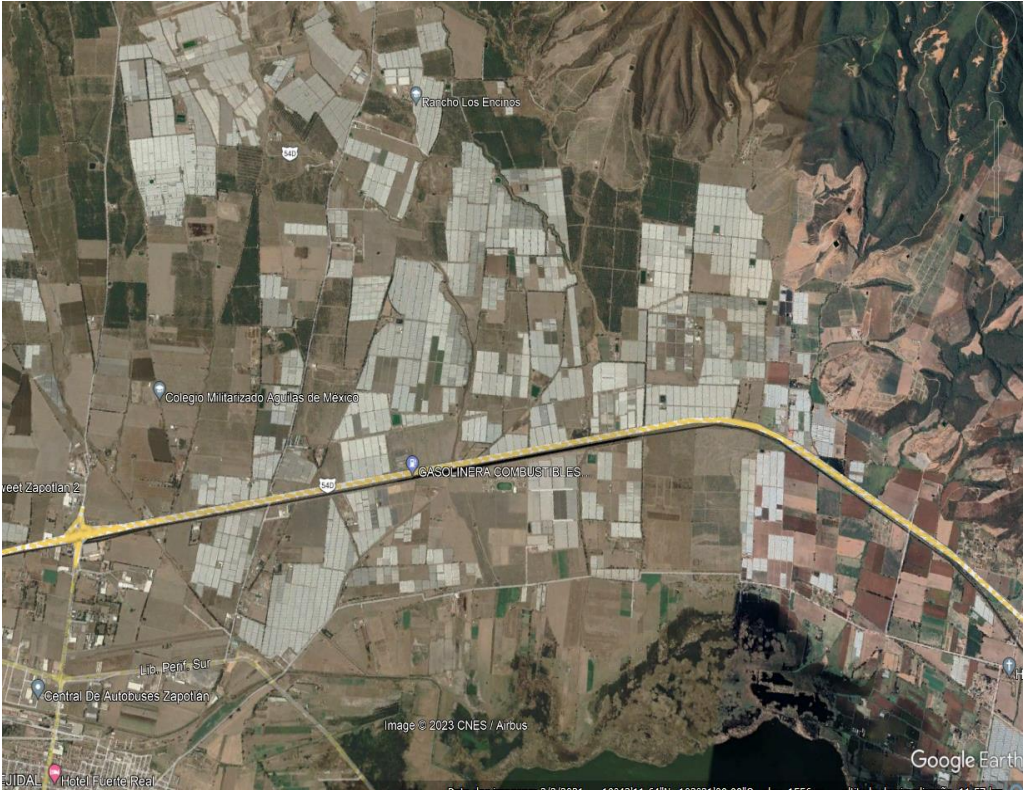


Jocotepec, 2023



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MEXICO – CIUDAD GUZMAN



SOURCE: Google Earth

MEXICO - TAPALPA



SOURCE: Google Earth

So....do we really understand our own impact?

- **Water:**
 - Do we verify the validity/legality of concessions and well permits?
 - Do we truly understand our aquifers
 - Do we measure consumption?
 - How many of us are recirculating?
 - What about erosion control?
- **Plastics:**
 - Do we follow disposal and/or re-cycling of tunnels and ground covers?
- **Soil vs hidroponics**
- Support of **biodiversity**: are we allocating land reserves?
- Are we working properly with Government, Industry and NGO's to reduce impact?

So what are the implications?

Certifications

(Food Safety, Social and Environment)

Overview of requirements & costs

Topic	Requirement	Customer, Region	Grower cost	Frequency
FS	GlobalG.A.P. audit	All - mandatory	390,4€ to 1345€	Annual
FS	Pesticide analysis, water quality analysis	All - mandatory		Pre- harvest, during harvest
FS	Water assessment & Food Safety audit	M&S, Waitrose (UK)		During harvest
FS	Tesco Nature audit add-on to GlobalG.A.P.	Tesco (UK)	197,5 €	Annual



New customer requirements







New versions in 2024

	Topic	Requirement	Customer, Region	Grower cost	Frequency
★	Social	GRASP add-on to GlobalG.A.P. audit	All + LIDL UK - except rest UK – mandatory	135€ to 367,5€	Annual
	Social	Sedex registration	UK (Iberia), all customers (Morocco)	approx. 150 €	Annual
	Social	Sedex Self Assessment Questionnaire (SAQ)	UK (Iberia), all customers (Morocco)	--	6 months
★	Social	SMETA audit	All (Morocco)	600€ to 2.000€	2 years, 1 year for Tesco
★	Social	Grievance system	Germany	TBD	2023 Iberia, 2024 Morocco

New customer requirements



Topic	Requirement	Customer, Region	Grower cost	Frequency
Environment	SPRING water add-on to GlobalG.A.P. -	DACH, Nordics, France, (UK)	392,5€ to 610€	Annual Pilot 2023, roll-out 2024
Environment	LEAF environment audit - mandatory	UK - Tesco, ASDA Ireland - Keelings	470€ to 660€	Annual, 2023-2024
Environment	Docuagro water legality reports	Internal (PT), UK, Nordics, DACH (ES)		Risk based
Environment	GHG emissions reports	Tesco – not yet mandatory	(Data collection)	Annual
Environment	GHG emissions reports	Internal	(Data collection)	2027, annual
Environment	Plastic waste information	Internal	(Data collection)	One-off
Environment	Other ad-hoc or annual customer questionnaires	UK, DACH, Nordics	(Data collection)	...

		Topic	Requirement	Customer, Region	Grower cost	Frequency
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ORGANIZATIONS/SECTORS THAT ARE AN EXAMPLE ON COORDINATED EFFORTS ON SUSTAINIBILITY



TEXTILE INDUSTRY

The Sustainable Apparel Coalition (SAC) brings together more than 280 global brands, retailers, manufacturers, NGOs, academics and industry associations along the whole supply chain, representing about half of the apparel and footwear industry. **The SAC is deeply committed to creating a more sustainable, equitable, and just world for all through collective action efforts that enable positive social and environmental impact at scale.**

A Coalition For Collective Action

The SAC brings together expertise from across the globe to develop sustainable solutions that redefine the industry.

Policy→

Partners→

Annual Meeting→

Planet Textiles→

Manufacturer Forums→

Trainings→

Decarbonization Program→

SOURCE: <https://apparelcoalition.org/>



About Us

The Sustainable Rice Platform (SRP) is a global multi-stakeholder alliance comprising over 100 institutional members from the public, private, research, civil society and the financial sector. SRP is registered as a not-for-profit member association working to transform the global rice sector by:



Improving smallholder livelihoods



Reducing the social, environmental
and climate footprint of rice
production



Offering the global rice market an
assured supply of sustainably
produced rice to meet the growing
global demand for rice.

SOURCE: <https://sustainablerice.org/>



“The partnership between FAO and the food company El Ordeño offers a new generation of sustainable food products, aimed at responsible consumers who care about of the origin of their food, with positive socio-economic and environmental effects”.

“Public-private partnerships have shown that they can positively influence production and consumption patterns with a rights and sustainability approach, promoting the development of a country”.

SOURCE: <https://www.fao.org/news/countries-good-practices/article/en/c/1381459/>



Revitalizing agriculture through the Farmer Field Schools in Malawi

Project that created **Farmer Field Schools** that provide agricultural advisory services, helping smallholder farmers in particular, acquire new skills and knowledge and to become more resilient to climate change and other challenges in their communities or ecosystems.



SOURCE: <https://www.fao.org/news/countries-good-practices/article/en/c/1641502/>

SUSTAINABILITY

Sustainability Tools

In partnership with industry leadership, has identified sustainability as a critical focus area for the produce and floral industries.



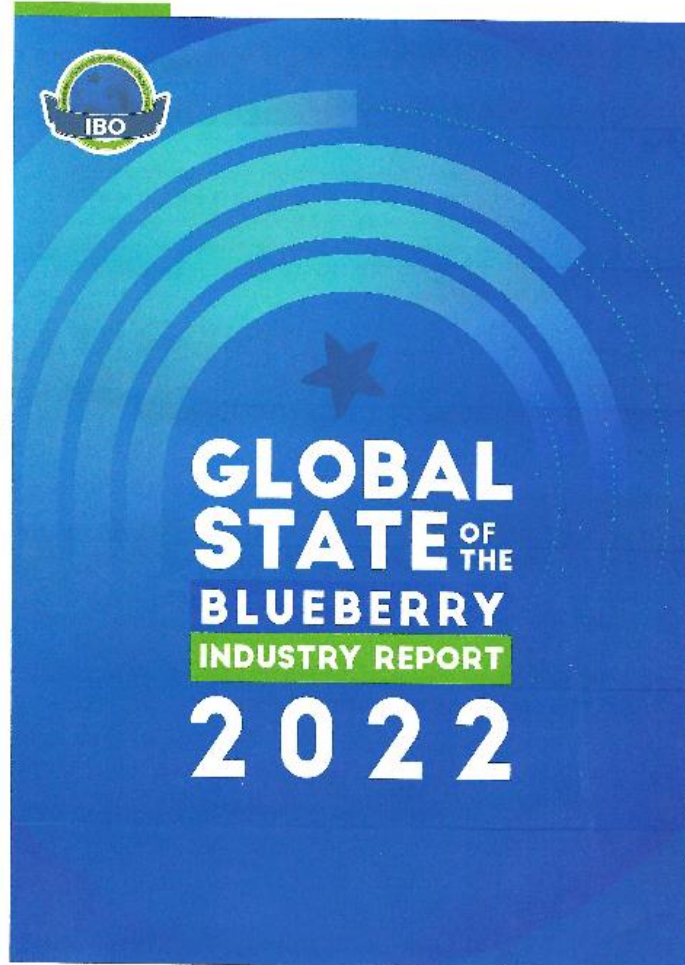
[IFPA HOME](#) > [RESOURCES](#) > [SUSTAINABILITY](#) > SUSTAINABILITY TOOLS

Sustainability is inherent in much of what we do, and as the original stewards of the land – we are uniquely positioned to provide leadership across many industries over the globe. One of the most direct ways to immediately make this impact is to recognize the transformative efforts happening in the industry and communicate it to various audiences. A powerful sustainability story can inspire others looking to implement practices of their own; convince potential or existing organizations to collaborate or partner; and educate various audiences (including consumers) on the importance and impact of sustainable practices.



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WHAT SHOULD IBO AND ITS MEMBERS COMMIT TO AND HOW?



Machine harvesting experimentation – from equipment design, to varieties, sowing robotics, and new growing techniques – is underway across the developed world, but remains a divisive topic with regards to the quality consistency and the industry is stilling for. However, most growers turning to this harvesting technique are doing so because they have to and not necessarily because they want to, and in the short-term at least it is still unclear to what degree its adoption will impact volumes of marketable fresh fruit due to bruising, damage, and reduced shelf life. There is a consensus among leading breeders and growers that successful machine harvesting for fresh will likely involve technology, equipment, varieties, and field design that are not in commercial use today.

Environment, Social and Governance (ESG)

Almost anywhere you go, something has changed in the weather conditions that affect blueberry production. Growers who planted particular varieties targeting certain production windows are finding their plans disrupted by variable weather conditions, which come in many forms. It could be warmer winter spells that induce bloom before a cold snap hits the plants, reducing fruit yields; more frequent rains during harvest that didn't used to happen 10 years ago; increased pest pressures due to warmer temperatures or unseasonal rain; increasingly earlier harvests due to warmer weather; or drought which is a pressing concern in many regions throughout the world, leading to increased utilisation of desalination plants for dry, coastal farms.

Climate change, climatic unpredictability, and the increased frequency of intense weather events that comes with it, will undoubtedly have an impact on the blueberry industry at a production level. This will shape the kind of approaches growers take when it comes to crop protection, growing structures to protect against the elements, and varietal selection. Given the high cost of desalination and the role southern highbush blueberries in warmer, drier environments have played in the industry's recent growth, the search for drought-hardy blueberry varieties will also be a consideration in the future.

Environment, Social and Governance (ESG) is an increasingly important feature of doing business, and more than ever

supermarkets are scrutinized by consumers and investors regarding their credentials in this complex and nuanced area of disparate subjects that are difficult to measure. In order to reduce plastic waste, there is a growing push to ensure the recyclability of packaging, and as referenced in the Western and Central Europe section, countries such as France plan to phase out single-use plastic packaging altogether for fresh sales including blueberries within a few years. This kind of legislative activity may have implications for the current blueberry business model of selling in clamshells, which to date have proven the best way to conserve blueberry shelf life and visual appeal; with the cost of timber on the rise, a shift to cardboard cartons won't be cheap either.

Today's consumer cares much more about the supply chain of what they eat, and the impact of their purchasing decisions on the world. This is why retailers – especially in Europe – are so demanding in terms of social certifications, and blueberry growers worldwide are meeting these stricter requirements.

It is against this backdrop that blueberry growers now have yet another challenge. They don't just have to be profitable and survive in an increasingly competitive landscape, but they must also demonstrate social capital. What are they doing to help the communities where they operate? What are their protocols in environmental stewardship and the protection of biodiversity?

Efforts are underway, particularly in North America and Europe, to reduce the use of plastic packaging in blueberries. Meanwhile, some companies and whole industries are also turning their attention to their carbon footprint.

Blueberries are a very labor-intensive crop, directly generating a livelihood for hundreds of thousands of people worldwide and with an indirect economic impact of hundreds of thousands or more. From harvest workers, to packhouse employees, to all of the people who service the sector, and all of the industries in regional areas where they work, workers and staff spend their earnings, schools, health clinics, chemical run-off mitigation schemes, sound environmental planning, and vocational training for local populations are all ways that the blueberry industry is making a positive contribution, illustrating its long-term benefits not just for the health and well-being of consumers, but the communities where the fruit is grown as well.

Environmental, Social, and Governance (ESG)

In today's business landscape the demonstration of Environment, Social and Governance (ESG) credentials is multi-faceted, and has become increasingly pertinent to maintaining a mandate to operate in the eyes of investors, partners, customers and consumers. ESG comprises a nuanced arena of disparate subjects that are difficult to measure, and where relativism abounds. Therefore, there is no prescriptive action that a grower, marketer, retailer or supplier must undertake in order to best address this responsibility. As a rule of thumb, a proactive approach to assessing the environmental and social impacts of operations – whether it be from packaging, transport, energy supply, agronomic practices, water usage, labor treatment or community engagement – is a good start, and where possible the execution of programs, activities or practices that will engender improvement. ESG is not just another narrative tool for marketing purposes; it requires being ahead of the curve and being transparent about a company or industry's efforts to make a positive difference, and its faults.

From a public reporting standpoint, one company that does a particularly good job of this is Australian fresh produce group Costa Group. With full disclosure of the fact the IBO president has spearheaded the growth of Costa's berry category, it is the unbiased opinion of this report's authors that Costa's 2022 Sustainability Report provides an excellent template that others may choose to follow. As highlighted in the comprehensive report made available on Costa's website, the company has taken guidance from the international Taskforce on Nature-related Financial Disclosures as a framework for addressing climate change risk and opportunities. For purposes of brevity, we could summarize key aspects reported as the calculation of water usage and greenhouse gas emissions across operations, outlining efforts to reduce water and carbon footprints in addition to waste, and appraisals of labor practices and community initiatives.

This report has previously included an ESG sub-header within the industry trends section, but upon stakeholder requests the decision was taken for this edition to establish it as its own section in order to give the topic greater emphasis. There have been numerous contributions to this subject from the interviews undertaken with industry stakeholders (see Acknowledgments section), and we have also sought insights from the International Fresh Produce Association's (IFPA) director of sustainability, Tamara Muruetagoiena.

Aside from the issues of social responsibility and water footprint which have been and continue to be matters of concern, the three most prominent topics in ESG at the moment are packaging, climate change and regenerative agriculture, although the latter still requires

