In the Eye of the Storm: Can GB Agriculture fulfil its commitments under the Climate Agreement and in the WTO?

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United Nations Framework Convention on Climate Change

Department for Environment Food & Rural Affairs

World Trade Organization

GB Agriculture: Climate-Smart AND WTO-compatible?

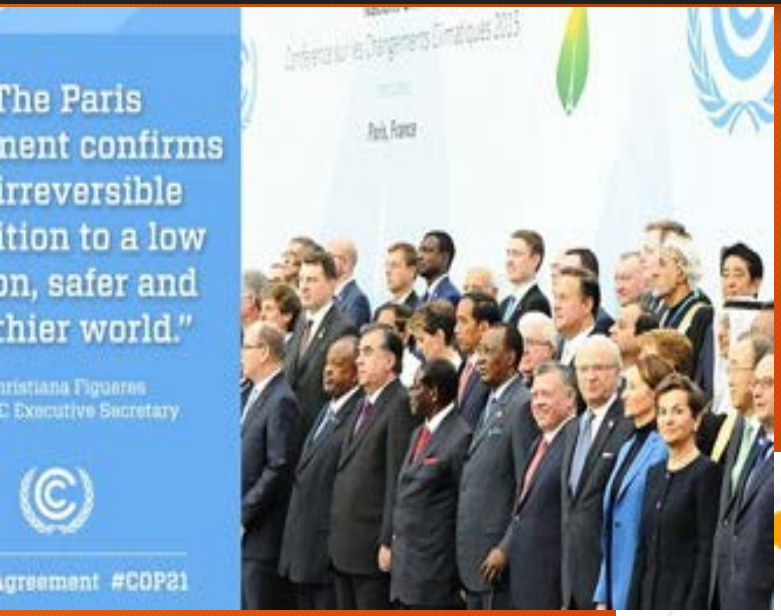
Christian Häberli (PhD, WTI Fellow)

DEFRA Masterclass Guest Lecture

Tuesday 2 October 2019

UNIVERSITÄT BERN

The Paris Agreement



Ratified and **IN FORCE** since 4/11/2016

Signatories : 195
Parties : 186

Adopted (UNFCCC) 12/12/2015

Signed by the two main GHG emitters

Source (as of 19/06/19): UNFCCC
https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en

United Nations
Framework Convention on
Climate Change

Top-down Commitments

All parties to address climate change
Overall Reduction Targets
Technology and Finance Transfers
(required by developing countries)

Nationally Determined Contributions (NDC) – *without guidance!*

Bottom-up obligations

Progressively mitigate global warming
Account for **delivery** and **performance**

WTO needs standards!

Common but Differentiated Responsibilities (and Respective Capabilities) (CBRD)

How to do mitigate and adapt?

United Nations Framework Convention on Climate Change

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Different footprint with different production and processing methods « non-product related » (PPM)

Prescribes (product and country) ***differentia-tion***

Prohibits ***discrimina-tion*** at the border (MFN/NT) and limits or prohibits certain NTM, subsidies, and other incentives

Brandi (ICTSD 2017), Holzer (2014)

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Did you say COP?

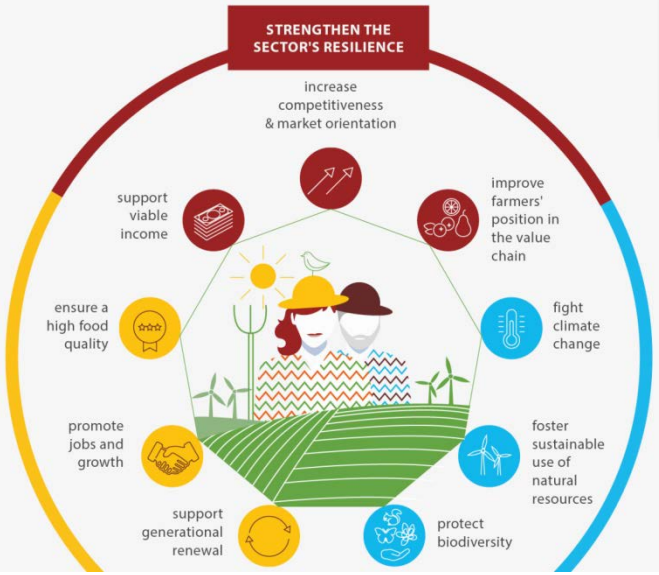
Koronivia Joint Work on Agriculture: "please work" (17/11/**2017**)

ENB - Katowice Highlights: "Welcome Koronivia Road Map" (18/12/**2018**)

ENB – Bonn Highlights: "NDC agreement was elusive" (22/06/**2019** – First Week)

Sources: IISD

http://enb.iisd.org/vol12/enb12737e.html



Paris for Agriculture

Smart Science requires **criteria** for arbitration, impact and legal assessment, and implementation monitoring…

Sources: Matthews (2019)
FAO (2018)

… and Paris Compatibility!

Define «Climate Smart»?
Relative footprints?
WHO will feed the world?
HOW to compete?

©Luca Locatelli (NZZ 180417)

Compete – with whom?

Climate change (mitigation) – among its many other challenges – impacts on **conditions of competition** along the whole food value chain.

© JULIEN GOLDSTEIN POUR « LE MONDE » 190831

Dutch chicks with lesser footprints

How does GB intend to reduce its greenhouse gas emissions for agriculture?

Great Britain – quo vadis?

RSA Food, Farming and Countryside Commission (SEP 2019)

(Photograph Owen H)

- Agriculture produced more than 10% of the UK's climate-heating gases and was the biggest destroyer of wildlife.
- The true cost of cheap, unhealthy food is a spiralling public health crisis and environmental destruction

Your proposals for “climate-smart agriculture”?

Bonus for low footprints?

- subsidies
- other incentives

Malus for heavy footprints?

- (domestic) taxes and prohibitions
- tariffs and charges
- import restrictions
- input restrictions

The Easy way?

- consumer information labels signalling product footprint

Border Carbon Adjustment and GHG Taxes

- Remember the EU Aviation Scheme? (RIP)
- Can you define <u>appropriate level of tax</u> (footprint difference btw products and countries)?
- Based on which standards?
- Variable tariffs?
- Within your WTO-scheduled maximum?
- Within your RTA/FTA preferences?
- Self-discrimination?

FAO/SOCO (2018)

No NDC with Climate-Smart Agriculture!

Climate Smart Disputes: who wins?

Picture: IISD (160706)

Old Fashions live longer: Agricultural Insurance Schemes

- public sector participation through market regulatory frameworks and financial support: premium subsidies, “insurance for work”, public reinsurance, tax rebates and direct insurance participation

- mutually exclusive nature of different risk management schemes

- India has a *Weather Based Crop Insurance Scheme*, an index-based insurance programme introduced in 2007 which included more than 9 million Indian producers in 2010–11, with a combined commercial premium volume of about USD 260 million

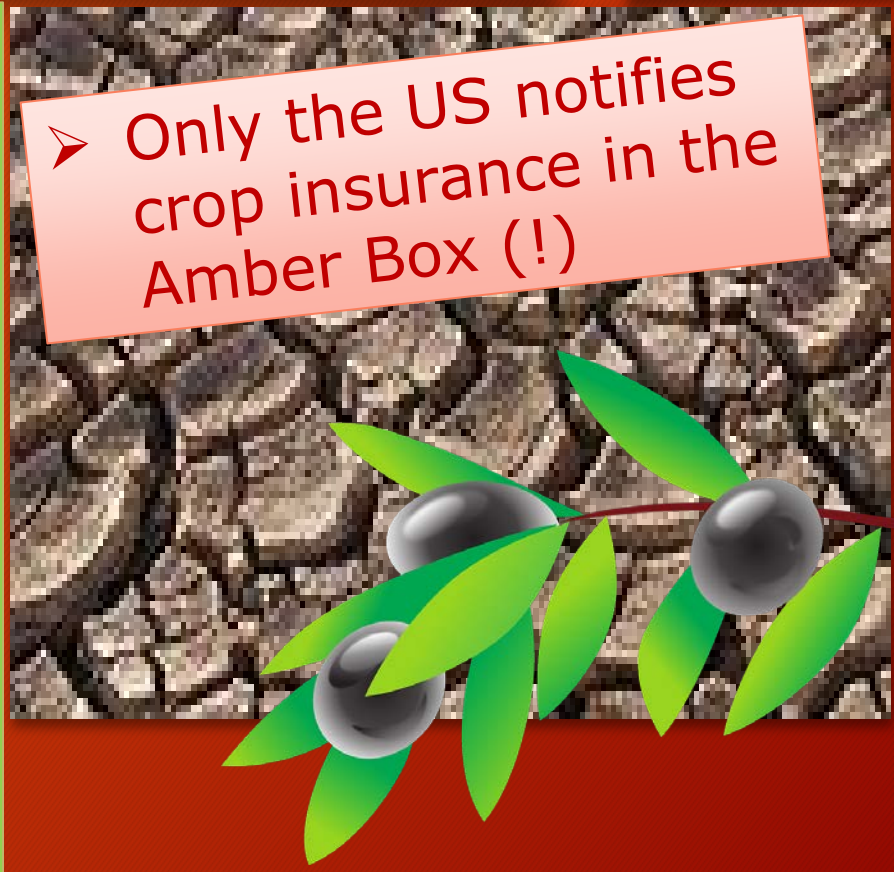
Insurance = Smart Risk Hedging…
…or Delaying Adjustment?
…or Dumping Avoidance?

- *Crop Insurance Support Programs (US, Canada, Spain, India, China and Ethiopia etc.)*

Questions from WTO:

- Who pays? For what risks?
- Trade distortion?
- A matter of size?
- Rules changes needed?

(IFPRI 2017, Glauber 2016, OECD 2015)



190624 EU escalates WTO dispute over olives

Greta for Smart Food-Nudging?

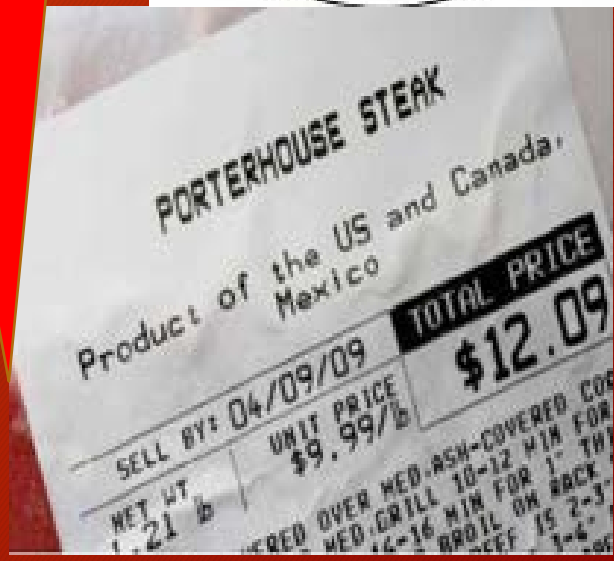
Marine Stewardship Council

FSC

ente: Elaboración propia a partir de Reglamento Sanitario de los Alimentos, Decreto Nº 13, 2015.

Traffic light labels on all UK breakfast cereals (2018)

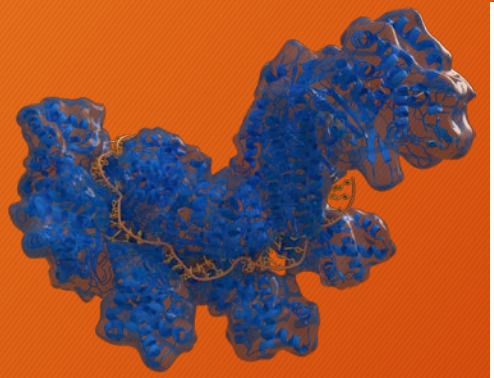
Chile (and Peru) prescribe health warnings, for (too much) Sugar, Fat, Salt and Calories (2016)



Sources: Boza (2016), Limenta (2017), Häberli (2017)

The only way? Three «Climate Smart» Food **Technologies**: IP? Paris?

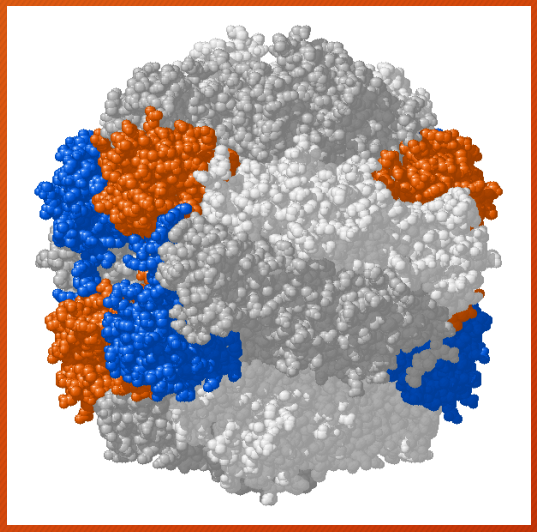
CRISPR Cas_4qyz[1]



© Thomas Splettstoesser (www.scistyle.com)

[1] Genetic Resistence to Virus or Plasmides

Rubisco[2]



Source: httpscommons.wikimedia.orgwindex.phpcurid=1411905

[2] Photorespiration Enzyme

Mootral[3]

Cf. #climatesmartcow https://www.mootral.de/

[3] Mootral (by Zaluvida): Plant-based add. feed reducing Bovine Methane Emissions by >30%

Australian Seaweed[4]

Asparagopsis Taxiformis

4 Source (190815): https://www.dairyreporter.com/Article/2019/08/14/Could-Australian-seaweed-reduce-methane-from-cows?utm_source=EditorsSpotlight&utm_medium=email&utm_campaign=2019-09-18&c=Eqhg%2BuW9J7ZMdu3p0ghGx71%2FiRA8hkN1

Illegal, Unreported and Unregulated Fishing

IUU – the biggest climate threat to food security

Image © FAO #619 (2017)

Agreement and Standards for catch quotas, subsidy limits, certification, and trade measures!!!???

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Summing up (I)
Negotiate or Litigate*

No advice for GB agriculture
*(or self-discriminate – if you are rich enough)

But before you do either, here is the challenge:

- Provide maximum policy space for climate mitigation and adaptation…
- … without negatively impacting on other countries, or unduly restricting trade and investment especially in poor developing countries

Don't bet on acceptance...

Summing up (II) Solutions – Any?

- For <u>all</u> countries

❖A "Paris Waiver" to be added to the list of measures in GATT-Article XX (VCLT won't do!)

❖A «*Climate-smart Green Box*» allowing for efficient and effective climate mitigation support measures based on internationally recognised standards (e.g. best agricultural practices, GRP, ISO etc).

- Only for <u>poor</u> developing countries: a <u>real</u> SDT!?

❖«*Developing Country Green Box*» (Art. 6.2 AoA) to be available for climate-friendly investments and certain agricultural input subsidies, for low-income or resource-poor producers.

❖Allow clearly defined infant industry protection for climate-friendly start-ups in poor developing countries (Art.XVIII:c GATT)

Selected Literature on the Search for Paris- and WTO-Compatible Policies

- Blandford, D., Border and related measures in the context of adaptation and mitigation to climate change (FAO – SOCO – 2018)
- Häberli, Ch.. Adaptation of agricultural trade and investment rules to climate change (Edward Elgar, Cheltenham/UK and Northampton/US, 2017)
- Häberli, Ch., Potential conflicts between agricultural trade rules and climate change treaty commitments. The State of Agricultural Commodity Markets (FAO – SOCO – 2018)
- Hertel, Thomas, Climate Change, Agricultural Trade and Global Food Security (FAO – SOCO – 2018)
- Lopian, R. 2018. Climate change, sanitary and phytosanitary measures and agricultural trade (FAO – SOCO – 2018)
- Tedesco, Ilaria. A holistic approach to agricultural risk management for improving resilience. PARM (2018)
- Schmidhuber, Josef et al (2018), The Global Nutrient Database: availability of macronutrients and micronutrients in 195 countries from 1980 to 2013. *in* Lancet Planet Health 2018/2: e353–68

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Global warming will not wait for a solution to Britain's or WTO's present problems.
Can we find such solutions in the eye of the storm?

Thanks for Disagreeing!

christian.haeberli@wti.org

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FOLU (2019/9) farm subsidies: **$1m a minute**

- The hidden costs of global food and land use systems sum to $12 trillion, compared to a market value of the global food system of $10 trillion; only 1% (£560bn) is used to benefit the environment
- The farming subsidies drive the climate crisis and destroy wildlife

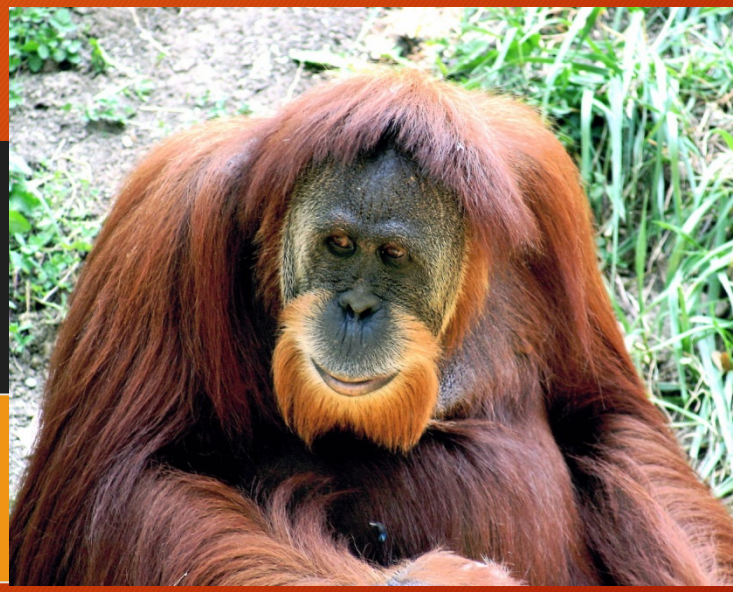
Olympia Yarger, CEO of the organisation GoTerra in Canberra, Australia. GoTerra uses robotic technology to manage food waste using insects, as well as creating high protein insect meal and valuable, nutritious soil conditioner.

Robotic technology using insects for food waste treatment, creating insect meal and soil conditioner

Damian Carrington, The Guardian, 16 Sep 2019

RENEWABLE ENERGY DIRECTIVE

Directive (EU) 2018/2001



BINDING OVERALL UNION TARGET FOR 2030 (ARTICLE 3)

AT LEAST 32 %

the share of energy from renewable sources in the Union's gross final consumption of energy in 2030

Weaning yourself – or the others?

AT LEAST 14 %

the share of renewable energy within the final consumption of energy in the transport sector by 2030

ropean Parliament and of the Council on the promotion of the use of energy from renewable sources (December 11, 2018)

MAINSTREAMING RENEWABLE ENERGY IN THE TRANSPORT SECTOR (ARTICLE 25)

Define «renewable» (e.g. RED) ≠ ban, but = ppm = TBT?

- **Biofuels,** bioliquids and biomass fuels **that do not fulfil the sustainability and greenhouse gas emissions saving criteria…**
- **…rare, threatened or endangered ecosystems or species** recognised by **IUCN**

Al-Riffai, Dimaranan, and Laborde (2010), Global trade and environmental impact study of the EU biofuels mandate. (http://trade.ec.europa.eu/doclib/html/145954.htm%5Cnhttp://environmentportal.in/files/biofuelsre- portec.pdf)

HEALTH: The SPS Conundrum
Food Security and Food Safety are Foes!

- Global warming increases health risk
- Food safety policies seek to minimise health risks
- There is no « zero risk » - but even minimising it means price increases at the expense of (poor) consumers and (often) developing country exporters, especially LDCs
- New trade barriers favour established and global players at the expense of new market entrants
- Food safety may reduce trade AND food security!

Palm Oil Production

Best available Global Food Security!

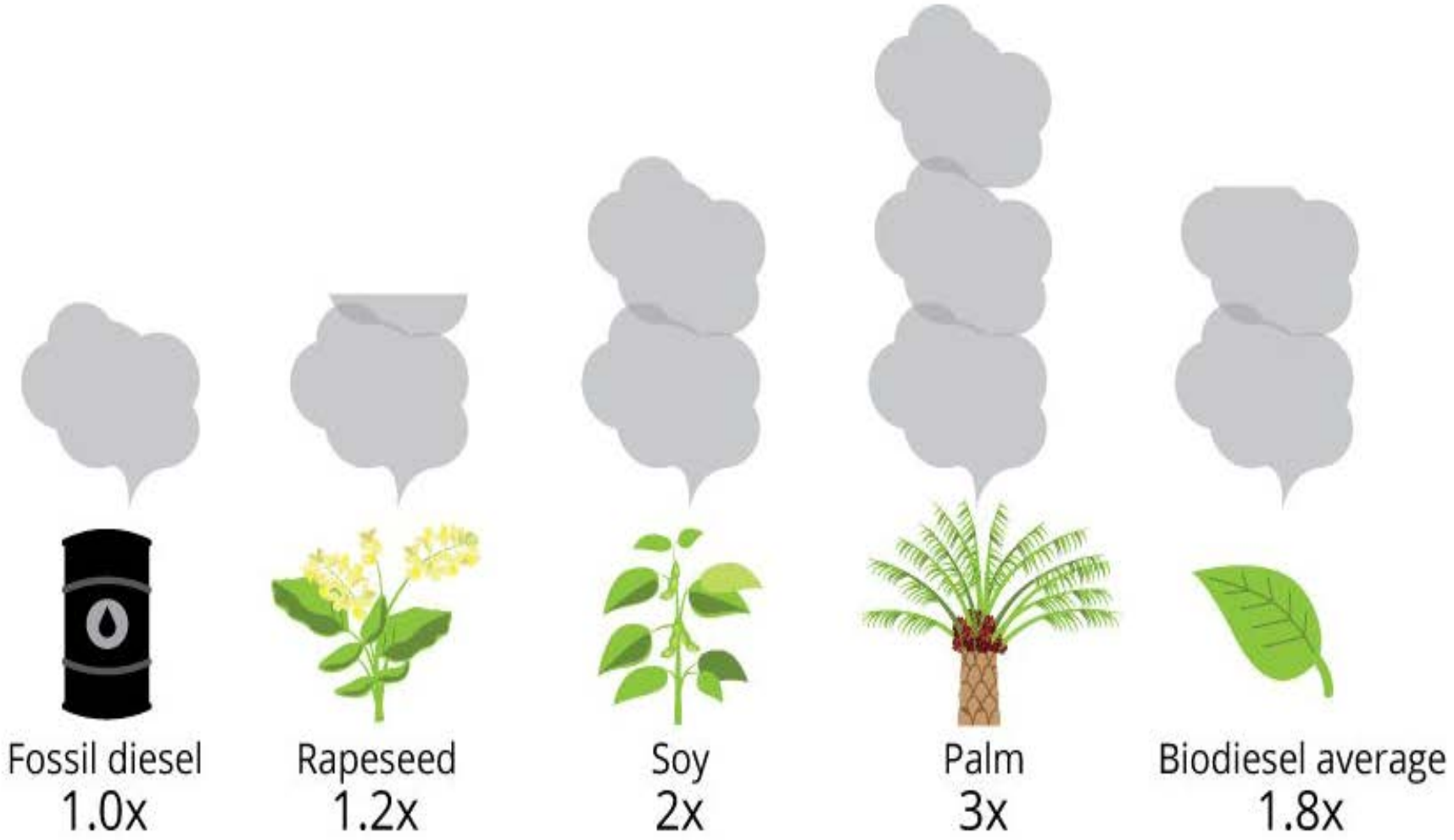
What about Deforestation? And RED?

"Eco-dumping" (SCM + AoA)?

...or take regulatory/tax measures to ensure Nutella sustainability?

«Like Product»?
What about Soy and Rapeseed?

European food-based biodiesel produces, on average, 80% more CO2 than fossil diesel.



Globiom forecasts these biodiesels will account for 57% of the total EU biofuels market in 2020

Source: Lifecycle analysis by T&E based on Gloom study (2016)

2+2=3

Biofuels, bioliquids and biomass fuels that do not fulfil the sustainability and greenhouse gas emissions saving criteria, that is, obtained from land with a high biodiversity value:

- a) primary **forest** and other **wooded land**, namely forest and other wooded land of native species, where there is no clearly visible indication of human activity and the ecological processes are not significantly disturbed;

- b) **highly biodiverse forest** and **other wooded land which is species-rich and not degraded**, or has been identified as being highly biodiverse by the relevant competent authority, unless evidence is provided that the production of that raw material did not interfere with those nature protection purposes;

- c) **areas designated**:
- (i) by law or by the relevant competent authority **for nature protection purposes**; or
- (ii) **for the protection of rare, threatened or endangered ecosystems or species** recognised by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature.

SHALL NOT BE TAKEN INTO ACCOUNT

(Articles 7, 29)

- Objective
  - 2.4 cars fueled by 1 football pitch of food crops
  - 260 cars fueled by 1 football pitch of photovoltaic solar panels

- Domestic products
  - EU 4th maize producer (50 millones de Ton/y)
  - "(...) the main crops that contributed directly or indirectly to deforestation include (...) maize (11%), oil palm (8%) (...)" (European Commision)

DELEGATED REGULATION (EU) …/… (Draft 13 March 2019)

CRITERIA FOR DETERMINING THE HIGH INDIRECT LAND-USE CHANGE-RISK FEEDSTOCK (ART. 3)

- (a) the average annual expansion of the global production area of the feedstock since 2008 is higher than 1% and affects more than 100,000 hectares;
- (b) the share of such expansion into land with high-carbon stock is higher than 10%.

IF "like domestic products": TBT Agreement Articles 2 ("more trade restrictive than necessary") and 5.1.1 (National Treatment)?

After WTO Bali (2013): Stocks again?

Food reserves are listed as «*green*» as long as they don't «have the effect of providing price support to producers» (AoA, Annex 2, para 3)

- Purchases and sales must be «made at current market prices»
- Developing countries have the right to operate such schemes at administered prices, but only as long as «the difference between the acquisition price and the external reference price is accounted for in the AMS» (i.e. Amber Box)

Stockpile Rules Changes Required?

- Private stockpile schemes under government control, and alternatives for stockpile financing (Häberli 2013, Gouel “state-contingent optimal policy”)
- Regional («virtual») food reserves: review relevant WTO rules, and look into International Energy Agency (IEA) mechanisms (Trethewie 2013, Lines 2011, Larson et al 2014)
- Export restrictions affecting commercial and food aid supplies to net food-importing developing countries (NFIDCs) (Martin and Anderson 2012)

Did you say « Mutual Supportiveness »?*

Potential UNFCCC Problems from WTO Agreements

GATT (Art. II:1b + XVIII + XX + XXIV + XXVIII)

GATS (Art. II + XIV + XVI + XVII + XVIII + Schedules)

SPS Art. 3.4

Safeguards

TRIPS (Art. 10)

+ LIC + PSI + VAL + RoO + TFA

SCM (Art. 3 + Fish)

Agriculture (Art. 6 + Annex 2)

Antidumping (Art.3.5)

DSU (+VCLT!)

TBT Art. 2.2

NFIDC

GPA (Art. V)

TRIMS

Paris Agreement (UNFCCC)

* Nineteen legal provisions in the WTO Agreement need to be revisited for «Paris» mplementation.

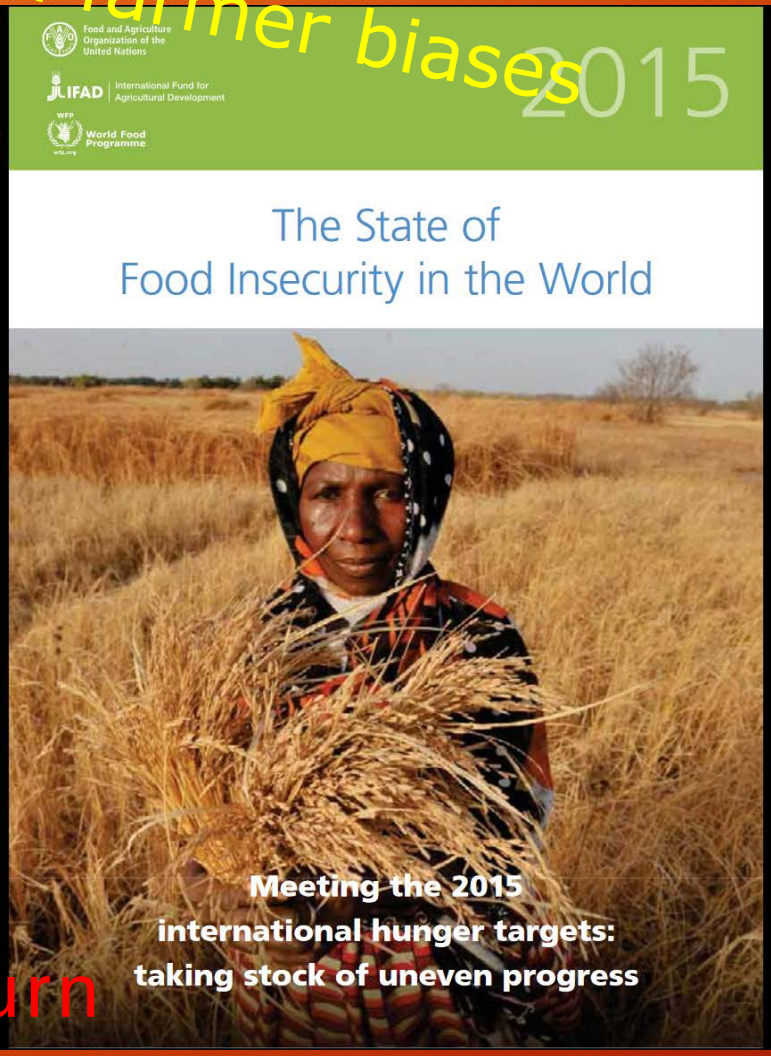
Food Security vs WTO

Vulnerabilities and Resilience with Trade

anti-small farmer biases

some land grabbers produce more and cheaper food

growing productivity and profitability gap



lack of tenure rights

tariffs or quotas or adequate safeguards?

slash-and-burn

«**Differentiate**» (as mandated by UNFCCC) AND avoid «**Discrimination**» (prohibited by WTO)?

Source: Alex Webb (2012) - Logging in Peru (Pucallpa. 2011. The major logging port on the Ucayali River)

This world could possibly feed twice the number of its present population – even with global warming
(Maletta 2016)

Poor developing countries and producers have always been, and still are, the smallest p.c. greenhouse gas (GHG) emitters; but they are likely to be among the most severely climate affected
(Häberli 2017)

Water Security

- UN Conventions
- Guidelines
- Public goods

Right to Water

- Investment contracts
- FTA/BIT
- WTO

Legal Frame-work

State Actors

- Utilities
- Governme
- Donors (ODA)

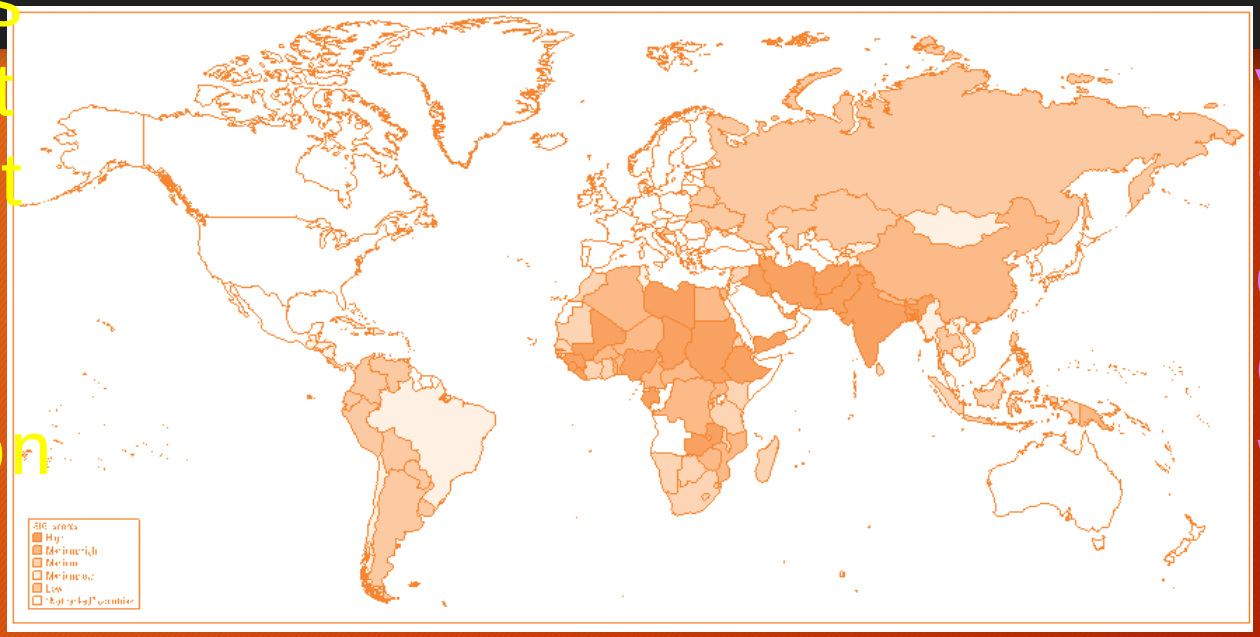
Users

- Mines
- Farms
- Factories
- Households
- Powerplants
- Environment (advocacy)

- "virtual water"
- "aqua-dumping"
- "water grabbing"
- public interest clauses
- *ius cogens*

Gender

Risk-taking attitudes and capacities differ, but this is not reflected in production credit schemes.



Ranking of Countries according to the *Social Institutions and Gender Index*, 2010
Source: ADB (2013)

Vulnerability to climate change exacerbated when individuals' asset bases are limited or insecure

While the burden of *chronic hunger* more than halved since 1990, it remains larger than the burden of *hidden hunger* (Gödecke et al 2018)

Market-Shaping Standards?

Marine Stewardship Council
Certified sustainable seafood

Aquaculture Stewardship Council

FAIRTRADE MAX HAVELAAR

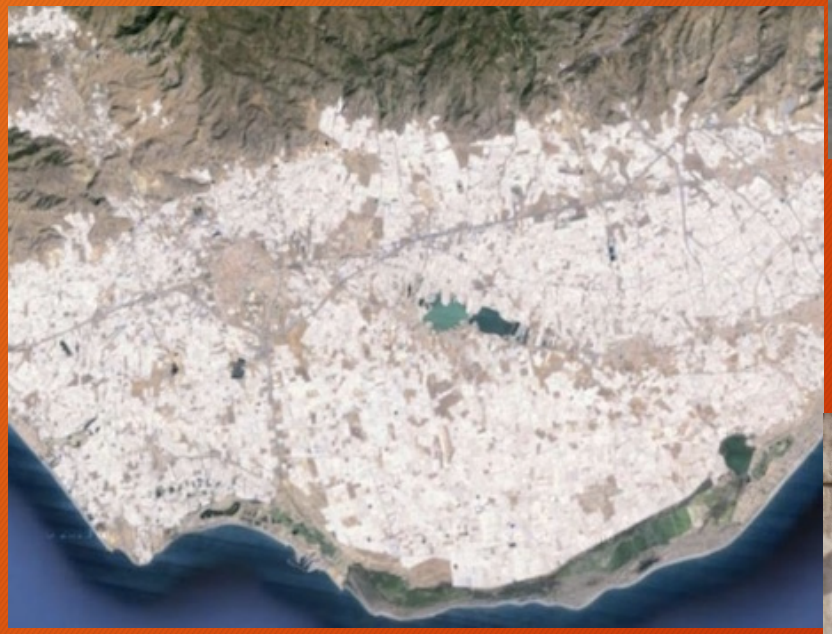
FSC
www.fsc.org
100%
From well-managed forests
FSC® C000000

UTZ

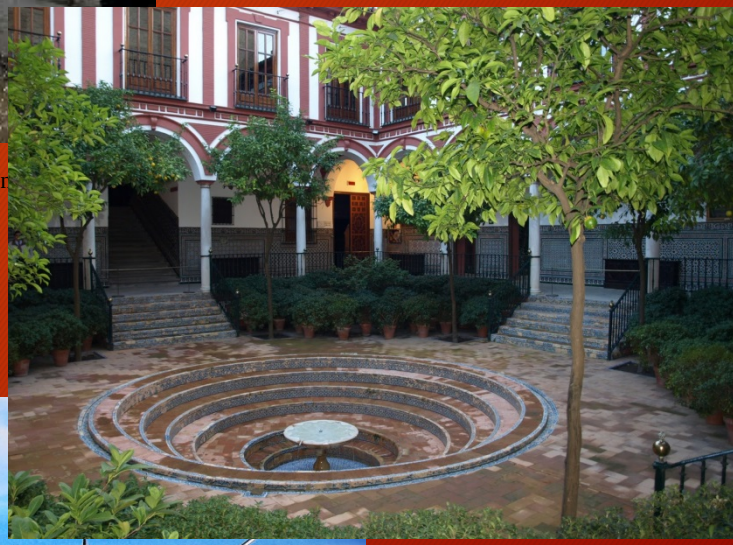
The production of certified seafood has grown rapidly over the past decade and now represents a significant portion of global production.
The estimated retail value reached $11.5 bn in 2015

What's up for India at 50°C?

And for Southern Spain by 2050?



Almeria (© GoogleMaps)



Fish

Fish farm in Lake Toba, Medan (Indonesia) © Wilson Teo/ flickr

- SDG 14.6
- WTO/SCM vs IUU
- SDT: Nigeria ≠ Namibia ≠ China
- Resilience-focused governance policies for aquaculture

Further readings:

- Cheung et al
- Moomaw and Blankenship

Fish

- SDG 14.6
- WTO/SCM vs IUU
- SDT: Nigeria ≠ Namibia ≠ China
- Resilience-focused governance policies for aquaculture

Care to discuss the WTO Fish text (2017) submitted to MC11?

Climate-Smart Agricultural Insurance?

public participation through market regulatory frameworks and financial support: premium subsidies, “insurance for work”, public reinsurance, tax rebates and direct insurance participation

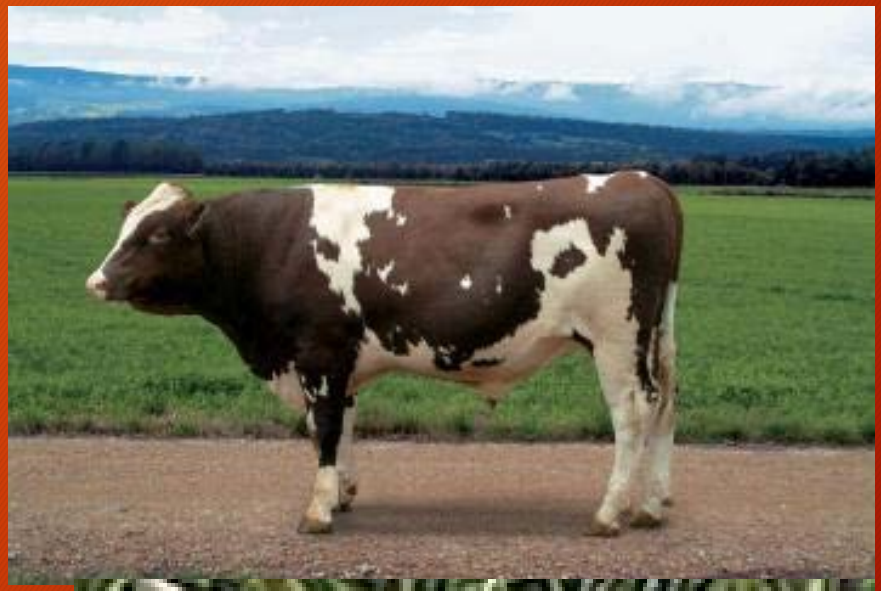
- mutually exclusive nature of different risk management schemes

Countries showing the highest potential for agricultural insurance in Africa
Source: SwissRe (2010)

Food Safety and Farm Impact

Increasing Demands on Producers

- Zero-Risk Mentality: Are food scandals good for domestic protection?
- How much time is left for farming?
- BSE and the cost of protection
- GMO and the price for inefficiency
- Possible impact of political decisions on the future of farming



AoA as an unfinished (**food security**) job

- Market Access for cash crop exporters
  - MFN tariffs remain high for most sensitive products
- Domestic Support against poor farmers abroad
  - Price support ceilings allow for re-increase of trade distortions everywhere ("box painting" everywhere)
  - Agro-dumping remains legal – in violation of UN treaty commitments – without SSM for NFIDC
- Export subsidies
  - Prohibited (2015)…
  - …but no new rules for export credits, export state trading and food aid abuse, no limits for food export restrictions