Cqrrelations Worksession
12-16 & 19-23 January 2015

Karin Ulmer, Speaking Notes
Monday, 12 January 2015
deBuren, rue Leopold straat 7, 1000 Bxls

Title: GDP Growth by Trade : Food in TTIP
(and alternative food systems)

Reading references

- European Commission Trade

http://ec.europa.eu/trade/policy/in-focus/ttip/

- (ex) Commissioner on Trade De Gucht (fun !)

https://www.youtube.com/watch?v=vnOTyOjV4I4

Reporter confronts EU-Commissioner with their own ordered study. Published on Feb 3, 2014. Karel De Gucht (European Commissioner for Trade) has to answer a lot of hard questions about the trade agreement. He was responsible for TTIP, the trade agreement between USA and the European Union (EU). From 30.01.2014, long version. Please Share! #StopTTIP #TTIP #TAFTA.

Figures:
CEPR study
545 Euro per household benefit:
100reds and 1000ends of jobs in EU
16 mio Europeans are working in European companies owned by US companies and vice-versa
Intertwined economy:
0.49% increase of GDP

- Pierre Defraigne, Madariaga.org Think Tank (ex General Director, DG Trade, European Commission)

http://www.madariaga.org/images/madariagapapers/october%202014%20-%20defraigne%20-%20departing%20from%20ttip%20and%20going%20plurilateral.pdf

- 30 reasons why to oppose TTIP

http://ttip2014.eu/blog-detail/blog/id-30-reasons-why-greens-oppose-ttip.html

- GRAIN : Food safety in the EU US trade agreement (scheme)

http://www.grain.org/article/entries/4846-food-safety-in-the-eu-us-trade-agreement-going-outside-the-box

- Friends of the Earth and IATP : EU-US trade deal: a bumper crop for big food?

http://www.foeeurope.org/sites/default/files/foee_iatp_factsheet_ttip_food_oct13.pdf

Céu D'Ellia, Brazil, 2000.

The coming crisis[8]

Whatever its location in time and space, agriculture always articulates with nature, society and the prospects and interests of those directly involved in farming (see Figure 1.4). If a more or less chronic disarticulation emerges in one of the defined axes, then one is faced with an agrarian crisis.

The 'classical' idea of agrarian crisis centres upon the interrelations between the organization of agricultural production and the interests and

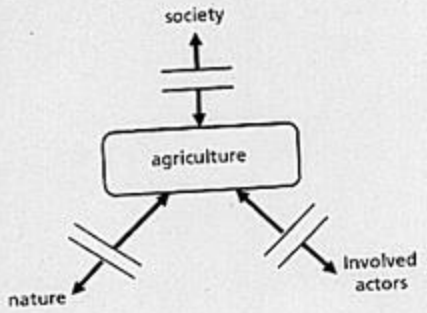


Figure 1.4 *An outline of the coming agrarian crisis*

Source: Adapted from Ploeg (2006a, p259)

Source: Jan Douwe van der Ploeg (2008) The New Peasantries – Struggles for Autonomy and Sustainability in an Era of Empire and Globalisation

Preliminary comments

- EU not such a success story in terms of CFSP but in terms of trade policy, yes

- De Gucht: "Because what we are trying to do with the TTIP is to *squeeze even more energy out of the transatlantic relationship to fuel our economies" (Oct2013, Prague)*

- Tony Lawson: study the nature of social phenomena and remove the obstacles to introduce real social realities; for everything social (whose existence depends necessarily on us) is constantly being transformed through human practice (e.g. language). All social phenomena share this mode of being and is intrinsically dynamic and subject to transformation.

- Beyond CGE- Computerised General Equilibrium Model :
  - price, income, substitution
  - benchmarking scenarios against baseline
  - whole economy modelled on production and consumptions
  - based on value added chains from primary production to salesi.e. links

- We need more qrallelations: expose social reality, meaning, value, human struggles and so forth

Good Food Good Farming

EU farm policy still harms poor countries – it's high time for change

Foregone Profit

Source: ZEIT 5/6/2014 Jens Jessen

PRODUCTION

World Potato Production

http://nationalpotatocouncil.org/files/1814/0060/4030/2014_Statbook_world_potato_production.jpg

Production 2012: Total world production: 364 868 768 tons in 2012, of which US: 19,2 mio tons, Germany: 10.67 mio tons, Poland: 9 mio tons, Belgium : 2,9 mio tons

Production 2005: Potatoes are grown worldwide in regions with moderate to subtropical climates. In 2005, altogether 322 millions tons of potatoes were harvested in 157 countries. Over half of the world's production was produced by China, Russia, India, Ukraine, the USA, Germany and Poland.

US exports and imports
http://nationalpotatocouncil.org/files/4314/0060/4026/2014_Statbook_US_exports.jpg
2012: exports 945 598 pounds fresh potato, 39,701 seeds (exports mainly to Asia)
2012: imports: 619 907 pounds fresh potato, and 158 360 seeds

Potato trade: Import/exports 2012-13

Potatoes HS 0701 (fresh or chilled)	Year	Value	Quantity
EU 28 Import from US	2013	3.659 mio Euro	16.000 tonnes
EU 28 Export to US	2013	133.405 mio Euro	174.000 tonnes
EU 28 Imports	2012	5.171 mio Euro	12.000 tonnes
EU 28 Exports to US	2012	135.162 mio Euro	269.000 tonnes
EU 28 Exports to Afghanistan	2013	140.499 mio Euro	173.000 tonnes

Vegetables HS (fresh and chilled)			
EU exports to US	2013	150.962 mio Euro	1 % of all agriculture trade of EU exports mostly stable since 2009
EU imports from US	2013	253.402 mio Euro:	2.6 % of all agriculture trade of EU imports increase from 128.762 in 2009

(Source: Eurostat, dd 17/10/2014)

Potato Production

	1991-2000 per year	average change	he used	2001-2010 per year	he used	Increase 1991-2010
Belgium	2.9 mio t	+/- 4.8 %	65.800 he	2.95 mio	66.95	18.30%
Bolivia	0.65 mio t			0.98 mio t		
EU Total	82.95 mio t			57.49 mio t		
Germany	11 mio t					
US	20 mio t					

(Source FAO, quoted by DG AGRI 2012)

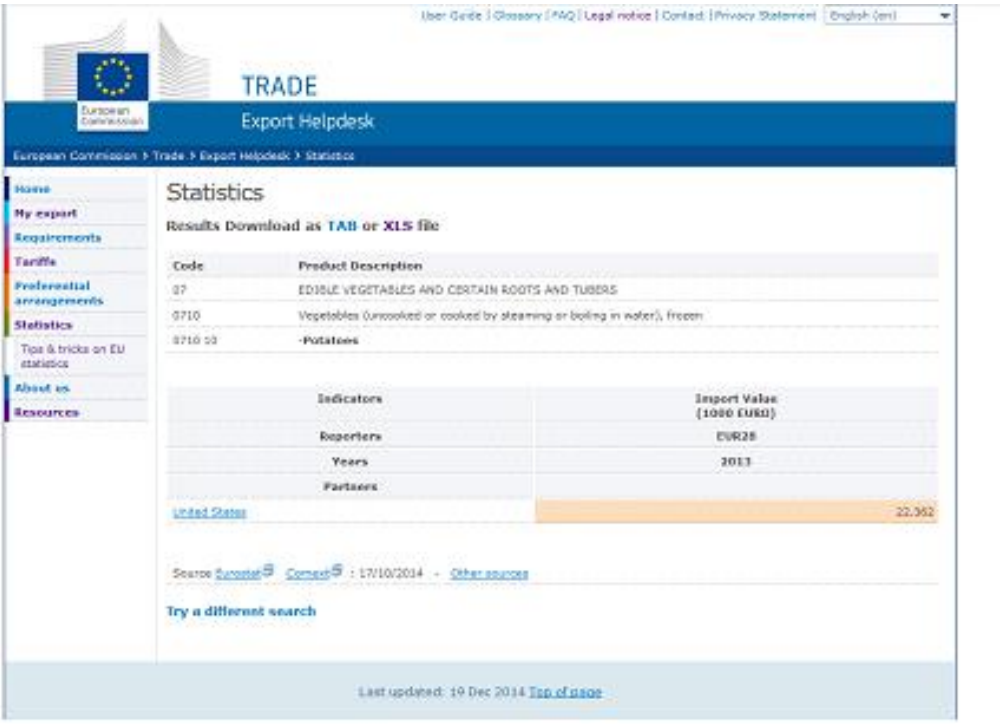
Seed potatoes (tons)

	1991-2000	2010
World	36.0 mio t	31.5 mio t
Africa	1,0 mio t	1.9 mio t
America(s)	2.9 mio t	2.8 mio t
Asia	6.8 mio t	8.8 mio t
Oceanai	0.1mio t	0.16 mio t
Europe	25.0 mio t	17.8 mio t
EU-27	8.7 mio t	4.9 mio t (-35%)

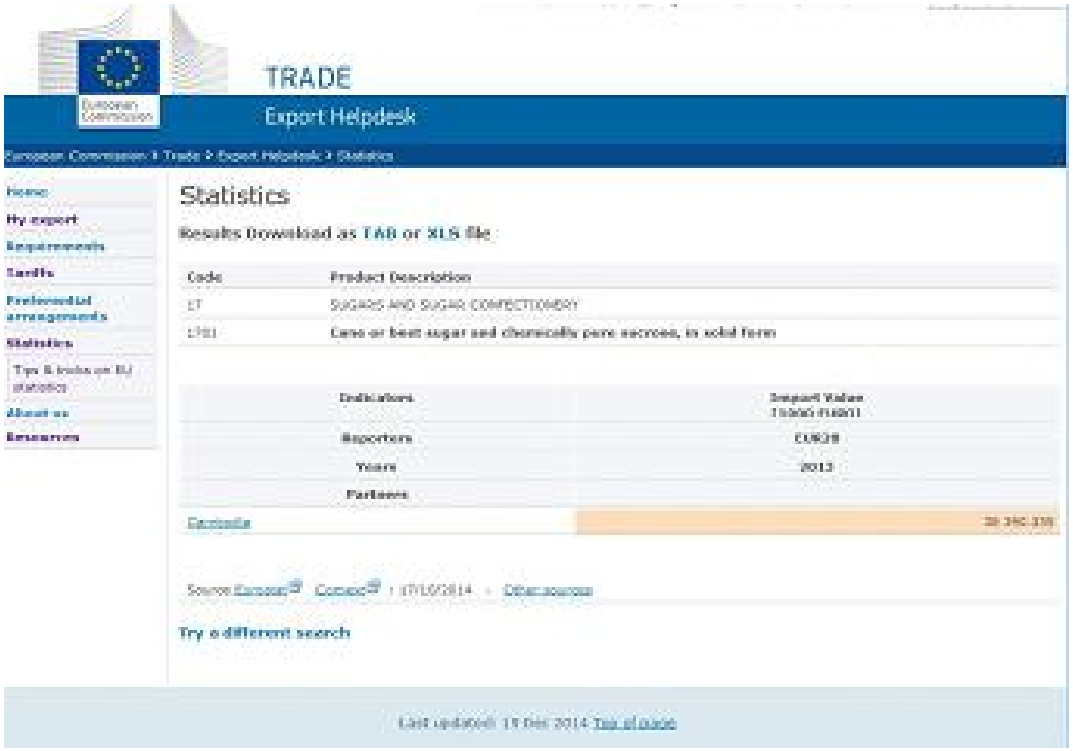
DATA

Commission Eurostat, Export Helpdesk Data

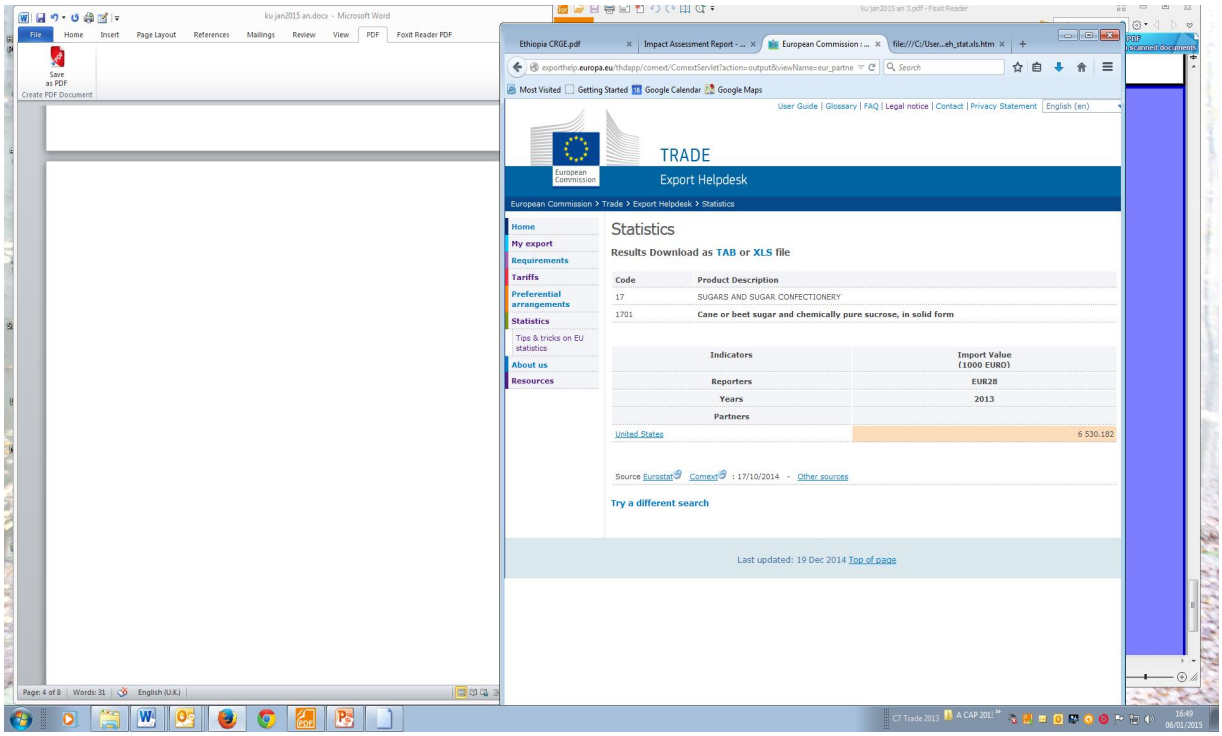
0710 10 Potatoes



http://exporthelp.europa.eu/thdapp/comext/ComextServlet?action=output&viewName=eur_partners&simDate=20130101&languageId=en&ahscode1=071010&cb_reporters=000&cb_partners=0400&list_years=2013&measureList=iv


TRADE
Export Helpdesk
Statistics
Results Download as TAB or XLS file
Code
Product Description
17
SUGARS AND SUGAR CONFECTIONERY
1701
Cane or beet sugar and chemically pure sucrose, in solid form
Indicators
Reporters
Years
Partners
Try a different search


TRADE
Export Helpdesk
Statistics
Results Download as TAB or XLS file
Code
Product Description
17
SUGARS AND SUGAR CONFECTIONERY
1701
Cane or beet sugar and chemically pure sucrose, in solid form
Indicators
Reporters
Years
Partners
Try a different search


TRADE
Export Helpdesk
European Commission > Trade > Export Helpdesk > Statistics
Statistics
Results Download as TAB or XLS file
Code
Product Description
17
SUGARS AND SUGAR CONFECTIONERY
1701
Cane or beet sugar and chemically pure sucrose, in solid form
Indicators
Import Value (1000 EURO)
Reporters
EUR28
Years
2013
Partners
United States
6 530.182
Source Eurostat Comext : 17/10/2014 - Other sources
Try a different search
Last updated: 19 Dec 2014 Top of page

PRODUCT(B): 1701 SUGAR

EU 28 imports SUGAR from Cambodia	VALUE x 1000 EURO				QUANTITY in Tons			
	2010	2011	2012	2013	2010	2011	2012	2013
EU-28	3,295	11,274	9,989	38,390	10,000	22,500	15,501	64,917
Bulgaria	0	0	0	18,020	0	0	0	29,251
Romania	0	0	0	13,865	0	0	0	25,805
United Kingdom	3,295	11,272	9,988	0	10,000	22,500	15,500	0
Greece	0	0	0	3,545	0	0	0	5,140
Spain	0	0	0	1,682	0	0	0	2,585
Italy	0	0	0	785	0	0	0	1,232
Belgium	0	0	0	238	0	0	0	484
Netherlands	0	0	0	120	0	0	0	200
Poland	0	0	0	82	0	0	0	120
Germany	0	0	0	53	0	0	0	100
France	0	1	1	0	0	0	1	0

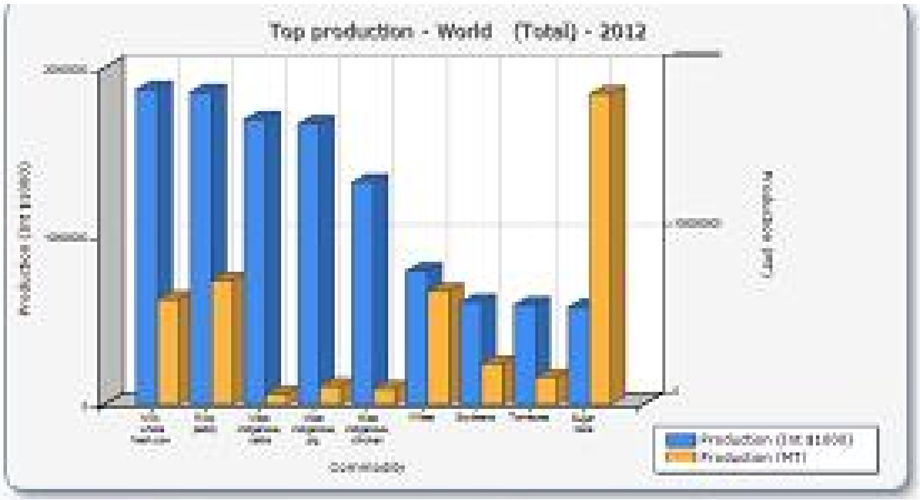
Source : EUROSTAT - Comext (17.02.2014)

In comparison Cambodia

The Cambodia case is presented to the ICC as a crime against humanity by FIDH who documents human rights violations and land grabbing affecting 770 000 people in Cambodia.

http://faostat.fao.org/site/339/default.aspx
http://faostat.fao.org/site/339/default.aspx

United States of America 2 987 382 (Int $ 1000) 20 990 738 (MT)



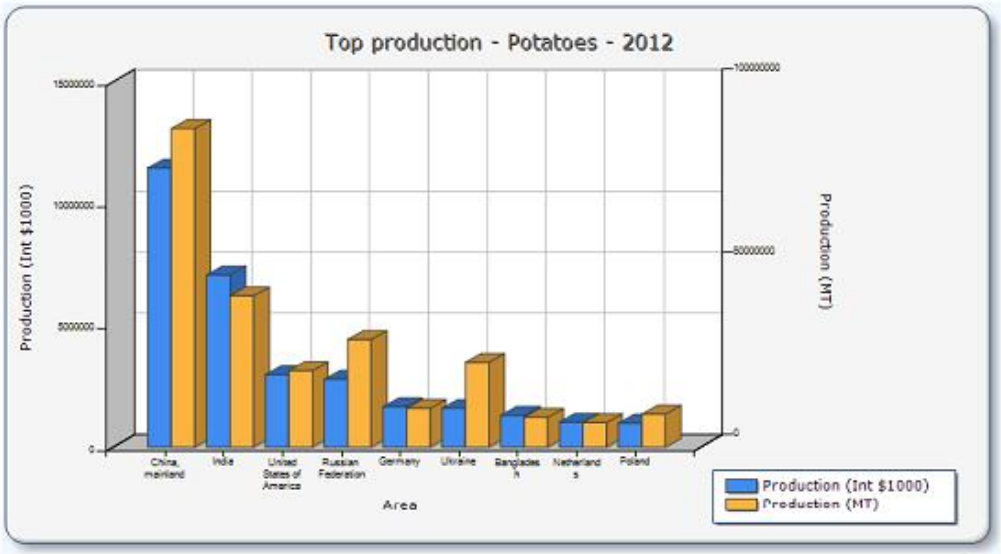
Rank	Commodity	Production (Int $1000)	Flag	Production (MT)	Flag
1	Milk, whole fresh cow	187277196	*	625753801	A
2	Rice, paddy	185579591	*	738187642	A
3	Meat indigenous, cattle	169474818	*	62737283	A
4	Meat indigenous, pig	166861096	*	108506790	A
5	Meat indigenous, chicken	133085858	*	92738419	A
6	Wheat	79283036	*	671496872	A
7	Soybeans	60692327	*	241342197	A
8	Tomatoes	59108521	*	161793834	A
9	Sugar cane	57898851	*	1842266284	A
10	Eggs, hen, in shell	54887628	*	66372449	A
11	Maize	52604404	*	872792597	A
12	Potatoes	46770418	*	365365367	A
13	Vegetables, fresh nes	46143728	*	269852545	A
14	Grapes	38336711	*	67067129	A
15	Milk, whole fresh buffalo	36303165	*	97417135	A
16	Cotton lint	37085127	*	25855096	A
17	Apples	31883888	*	76378738	A
18	Bananas	28209561	*	101990743	A
19	Cassava	25561234	*	269125965	A
20	Mangoes, mangosteens, guavas	25248260	*	42138637	A

* : Unofficial figure

A : Aggregate, may include official, semi-official or estimated data

Selected item:

Potatoes | 2012 | Sort by: Value



Rank	Area	Production (Int $1000)	Flag	Production (MT)	Flag
1	China, mainland	11470356	*	87260000	*
2	India	7082050	*	41483000	
3	United States of America	2987382	*	20990738	
4	Russian Federation	2793937	*	29532530	
5	Germany	1665632	*	10665600	
6	Ukraine	1598029	*	23250200	
7	Bangladesh	1312276	*	8205470	
8	Netherlands	1038951	*	6765618	
9	Poland	989377	*	9091900	
10	France	972314	*	6340807	
11	Iran (Islamic Republic of)	881036	*	5400000	F
12	Turkey	765590	*	4795122	
13	Canada	740998	*	4590296	
14	Algeria	687124	*	4219476	
15	Egypt	678837	*	4758040	
16	United Kingdom	663815	*	4553000	
17	Pakistan	661503	*	3393000	
18	Peru	628456	*	4474713	
19	Brazil	590224	*	3731798	
20	Malawi	482771	*	4152204	

* : Unofficial figure

[ ]: Official data

F : FAO estimate

Potato Policies

Source: (European Commission, DG AGRI, May 2010)

CAP 2006-2013

- Since 2008 all potatoes production areas in the EU can be potentially eligible to receive direct payments under the EU Common Agricultural Policy (CAP).
- Potatoes operators can benefit from CAP promotion and quality schemes.
- There is no common market organisation for potatoes (in contrast to wines, poultry, pork and bovine meat, dairy, sugar, etc...)

Production

- Potato production is in decline in the EU with structural transformation but remains the most competitive segments of EU agriculture.
- Important sub-sectors are potatoes seeds and processed (potato) products.
- EU potatoes producing countries: Germany, Netherlands, France, UK, Belgium (EU-5).
- Poland has for a long time been the first potato producer but production has strongly declined, while EU-5 are strengthening their position on the EU market.
- In 2007, the EU 27 share of global trade in potatoes was 19.3%. The EU 27 was the second largest producer of potatoes in the world; China is the first world producer.
- (FAO 2012): The 30 main world producers of potatoes in 2010: China: 75 mio t, India: 35 mio t, Russia: 20 mio t, Ukraine: 18 mio t, USA: 18 mio t, Germany: 10 mio t, Poland: 8 mio t. Followed by Bangladesh, Belarus, France, Netherlands, UK, Turkey, Canada, Iran, Peru, Malawi, Egypt, Brazil, Belgium, Algeria, Romania, Pakistan, Kazakhstan, Nepal, Japan, Spain, Colombia, South Africa. EU-27: 58 mio t.

Food processing and industry

- Food industry requires potatoes for different types of products: pre-cooked products (French fries), de-hydrated products (potato flours, potato flakes or potato granules), snacks, other products (gnocchi, salads, ready prepared meals, etc)
- Some broad categories of potatoes: early potatoes (for human consumption), main crop potatoes (for human consumption), seed potatoes, starch potatoes.

Different legal aspects to potato sector

- CAP promotion policy
- CAP quality policy
- SPS
- External trade

1. EU Co-financed Promotion Projects:
Potatomania (proposing organisation VLAM+APQ+W+CNIPT+AGF Promotie Nederland from Belgium, France and the Netherlands) and Merpotatis.nu (proposing organisation Svensk Potatis from Sweden)

2. Potatoes are entitled to benefit from PDO (Protected Designation of Origin), PGI (Protected Geographical Indication), and TSG (Traditional Speciality Guaranteed) to promote and protect food products. Examples: Patata Kato Nevrokopiu (PGI – Greece), Pommes de terre de Merville (PGI France), Pomme de terre de l'ile de Re (PDO- France), Opperdoezer Ronde (PDO Netherlands), Lapin Puikula (PDO Finland), Jersey Royal potatoes (PDO UK).

3. EU Plant Health Regime, Council Directive 2000/29/EC of 8 May 2000 :
Controls pesticide use, sale and use of plant protection products, standards and monitoring and control of pesticide residues. Ensures quality conditions for sale of seeds and propagating material within the EU. EU legislation covers IPR granted to plant varieties, as well as the conservation and use of genetic resources. (Responsible: DG SANCO).

Financialisation of the food supply (deconnect)

Financialisation of the food supply chain: agricultural derivatives markets
Financial players: individual investors, institutional investors incl pension funds, commercial and investment banks, insurance companies, hedge funds, private equity funds, stock exchanges, agricultural exchanges and other trading venues for agricultural commodity derivatives, fund managers, financial advisors, etc

Number of agricultural companies (food production, trade, distribution of seeds, inputs, agriculture produce and processing food, etc) have chosen to list on the stock markets
There are no legal requirements for listed agri-food companies to report on impact of their activities son farming communities or other stakeholders (externalised costs)
Vicious circle of integration, concentration, large scale production, processing, trade and retailing
Move production to cheaper sites or outsource production to agricultural producers that are not unionised, or not organised in cooperatives.
Buying up of smaller innovative sustainable companies (to eliminate potential future competitors)
Tax evasions ('tax planning', tax havens, transfer pricing)

Bank lending practices: debt repayment is legally enforceable and given highest priority (farmer suicides)
Alternative funding from agribusiness (financial services, hedge funds) which are mostly under unfavourable terms, i.e. contract farming, long-term contract with buyers and supermarkets, or to derivate markets – where farmers have no strong bargaining position.
A large-scale business is rated by banks to be less risky than SME
Financial sector is also providing large-scale agribusiness and food retailers with merger and acquisition (M&A) services (with substantial fees for services).

Types of financial entities engaged in landgrabs (GRAIN 2012):
- investment management companies (targeting institutional investors : universities, pension funds)
- investment funds and holdings
- hedge funds (e.g. Black River is owner by Cargill)
- private equity funds and venture capital funds
- mutual funds offered by banks and investment management companies
- insurance companies
- exchange-trade funds (ETFs)
- sovereign wealth funds
- individual investors

Hedge and private equity funds typically re-sell farm land assets after 6 to 8 years at a high profit.

Agricultural commodity derivatives markets: Chicago Board of Trade (CBOT)
Higher interconnectedness with the financial markets

MiFID II: new regulation of (agricultural) commodity derivatives markets in the EU
MiFIR 2014: no link of farmers hedging needs, no link of derivative markets to required infrastructure for warehousing

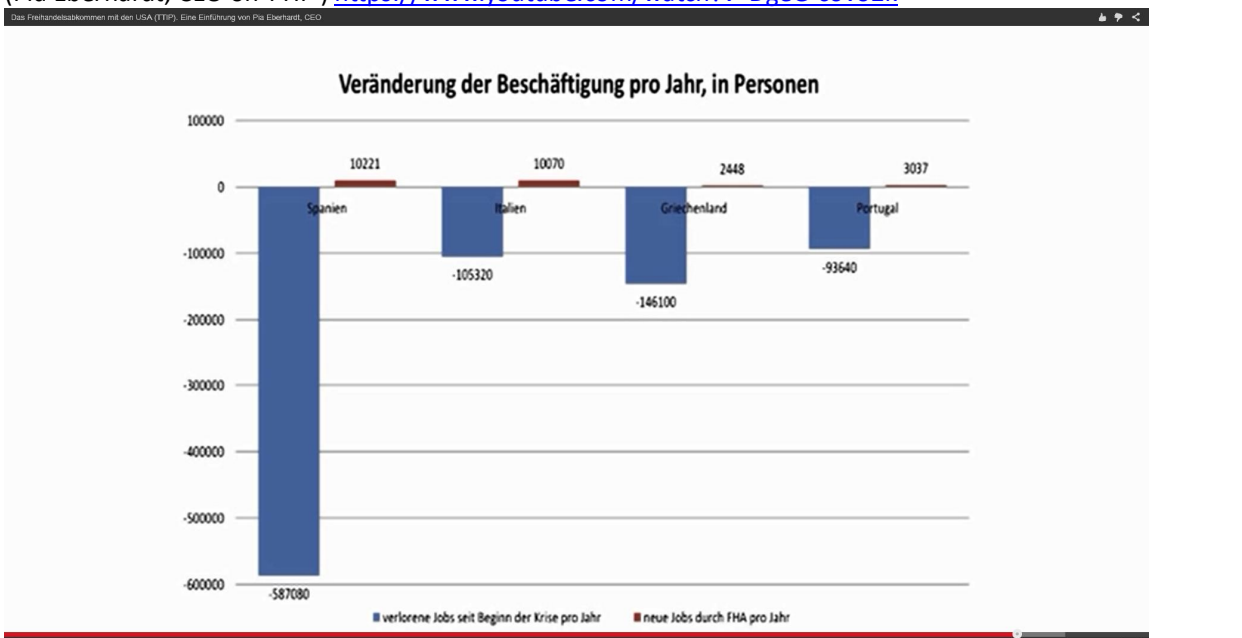
Agribusiness has itself become a financial actor (speculation, loans, hedging for their farmers, payments, other financial services)

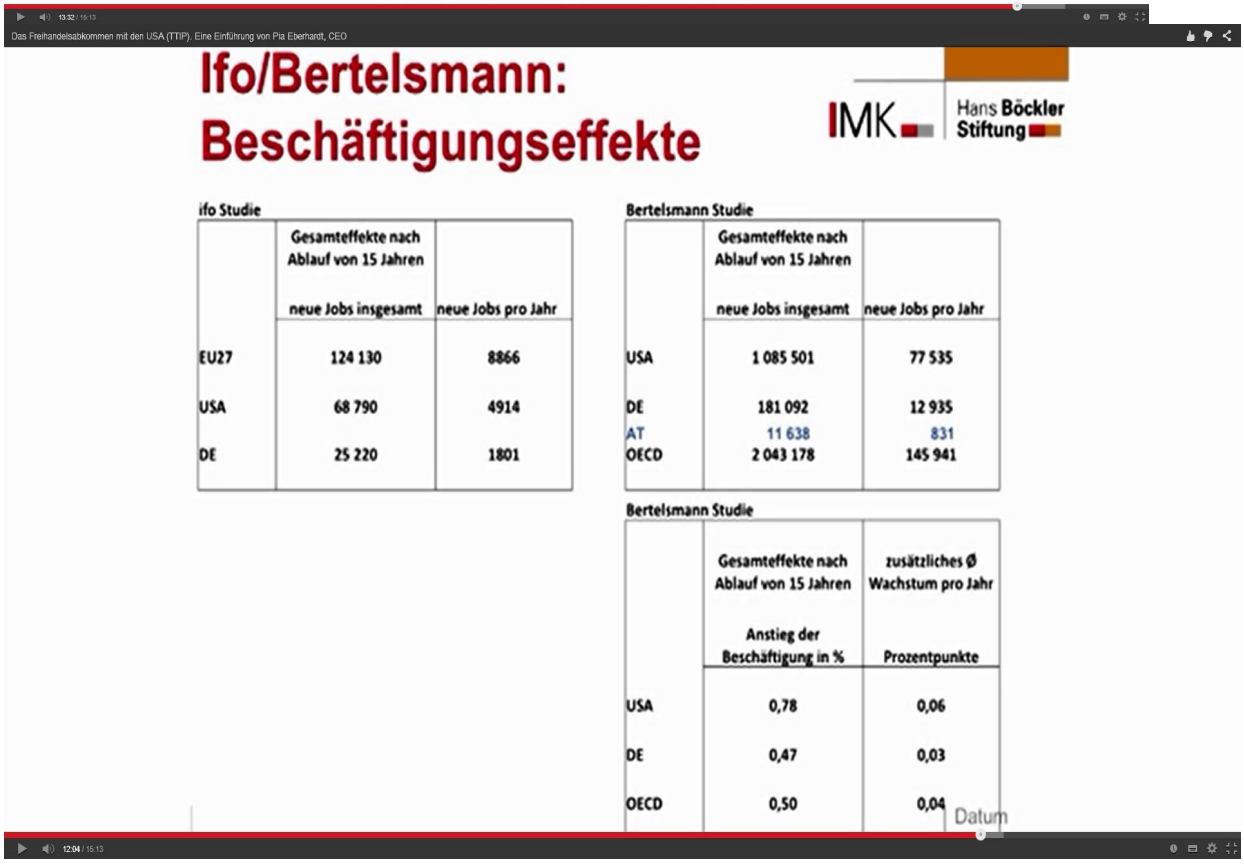
Jennifer Clapps (2013) calls the growing influence of financial sector in agriculture 'distancing'

Alternatives: citizens' funds

Economic Benefits of TTIP

(Pia Eberhardt, CEO on TTIP) https://www.youtube.com/watch?v=DgeG-covo2k





http://link.springer.com/article/10.1007/s10273-014-1677-7

Benefits of TTIP

1-CEPR: Centre for Economic Policy Research (COM study)

Growth and Prosperity

Most optimistic hypothesis : EU's economic output could raise by 0.5% by the year 2027 as a result of TTIP. This hypothesis included deregulation sectors like the chemical sector, which the COM has now admitted are unrealistic for reguatory harmonisation, given the very different legislative frameworks in the EU an USA (COM 14 May 2014)

Prof Jagdish Bhagwati: 'assumptions on which the modelling is based levea the studies' funding without any objective validity

Politicians have now largely abandoned the additional CEPR study claim that TTIP could translate into an additional **545 Euro** a year for the average European populace at large – because there is no indication that corporate gains would be passed on to the European population.

Parallel study by CEPR for UK: hypothetical figures of 10 billion Pounds annual gain by 2027 from TTIP on the basis of a scenario that 75 percent of all non-tariff barriers in the chemical, automotive and business/ICT sectors would be eliminated. (MP Ken Clarke, 3-4-2014 consideres this figure not credible).

Employment impacts

The CEPR report was unable to predict net impact on employment levels from TTIP
However, it recognised that at least 1.3. European mio workers and over 715 000 US workers would loose their jobs as result of labour displacement arising from TTIP under the EU's preferred 'ambitious' TTIP outcome.
Under the less ambitious outcome, over 680 000 European workers would lose their jobs, and more than 325000 US workers .
CEPR calculates that TTIP will cause at least 1 mio people to lose their job in EU and US combined.

Manchester University researchers (Clive Georg) have criticised CEPR figures as 'misleading' and likely TTIP gains as 'trivial'.

(CEPR (2013) Reducing Transatlantic Barriers to Trade and Investment: An Economic Assessment, London. Section 5.2.3.)
http://trade.ec.europa.eu/doclib/docs/2013/march/tradoc_150737.pdf

2-European Commission Impact Assessment

IA acknowledges 'prolonged and substantial' adjustment costs as a result of displacement of labour caused by TTIP; further recognising the legitimate concern that those workers who loose their job will not be able to find other employment.

The COM advises EU MS to draw structural support from the European Globalisation Fund and the European Social Fund which has a budget of 70 billion Euro for 2014-2020.

(Impact Assessment report on the future of EU-US trade relations, Strasbourg, European Commission, 12 March 2013, section 5.9.2)

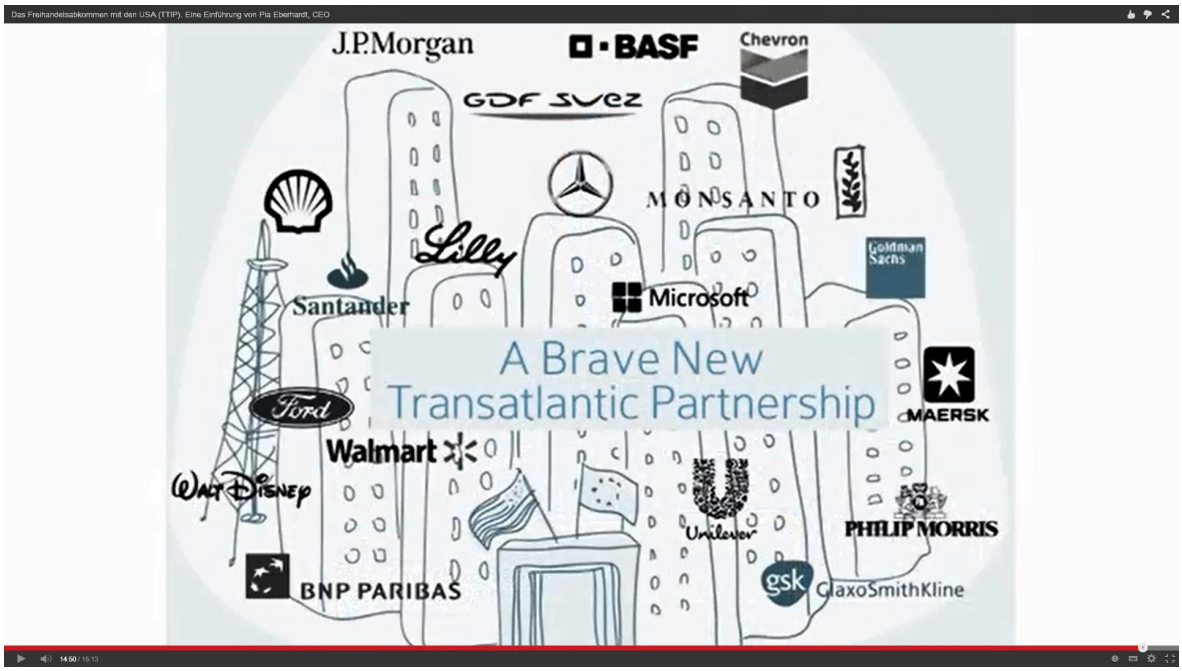
3-IFO Institut, Munich

Misquoting the findings of 400 000 new jobs in the EU: this figure was presented not as a possible outcome of TTIP but on the hypothetical estimate of what might happen were the US to be fully integrated in the EU's internal market. But the report says that any employment gains, even under the most optimistic estimates, would remain 'small'.
Other studies have dismissed the IFO's Institute's prediction on job creation as impossible.

IFO Institute (2013) Dimensionen und Auswirkungen eines Freihandelsabkommens zwischen der EU und den USA. Section III.6

Evidence from NAFTA between the US, Canada and Mexico, which entered into force in 1994 caused the net loss of one million US jobs, and a significant decline in the value of wages for millions more workers (Economic Policy Institute, 2006, Revisiting NAFTA: Still not working for North America's workers, Washington D.C.; and Public Citizens (2014) NAFTA at 20, Washington D.C.)

https://www.youtube.com/watch?v=HyFXmsfm29Y



Regulatory Council

Robert Weismann, Public citizens:

- US trade negotiators: Diminish the role of government and increase role of private sector
- Empowering US / corporate sector to have greater influence and control over regulatory process (complex process)
- Key features:
- 1- problem :Fundamental reliance on cost-benefit analysis: used differently
- Pseudo-science that is tilted towards favouring corporations – looking at costs side – the primary entity that holds information about costs is with industry itself (holds it higher)
- We convert all those things into US Dollar, otherwise, they won't fit into our system (clean air, water, etc)
- 2-problem: centralized review: Office of Information and Regulatory Analysis: has no issue expertise but controls all new regulation. 100% intervention of OIRA are in favour of industry, always weaker than stronger over 30 years, famous for delays, or preventing agencies to continue with rules making, cover for political intervention by the White House on behalf of connected industry, some rules simply stuck because some background lobbying…
- 3-problem: judiciary review: can be challenged in court system. Industry have virtually always standing, i.e can challenge a rule, the public only sometimes. The court may look at all information the OIRA has been used information, etc . Industry may do their own cost-benefit analysis. Chilling effect.
- Examples:
- a: silicon dust for health and working safety since 1998: rule stuck for 2 years and finally agency had permission to propose the rule but now stuck again.
- b: 2008: car back drove accident – some special protection (review cameras) to avoid back role over accident. Agency was blocked – requested delays on 4 separate occasions. Public citizens went to court and ordering of rule is now by 2015 – so it takes a court rules and 4 years of delay…
- c: cost-benefit analysis: rule to put calorie counts on food served on menus: consumer less well off because consumer preference was to buy apple pie and because of intrusive government intervention would reduce the buying of an apple pie - the cost-benefit analysis of 50%.
- TTIP: is a project to gloablise this approach more than ever. And note that the system didn't look like it looks now 15 years ago..

STANDARDS

Table 1: TTIP food safety battle lines Source: GRAIN

Issue	What US agribusiness wants from the EU
GMOs	Speeding up of the EU approvals process and synchronisation with US approvals. No individual tests for components of stacked genetic events. Greater tolerance of trace amounts of GM events in food, feed and processing. Drop the ban on GM-fed poultry and pork. Replace labelling of GMOs with labelling of GM-free
growth hormones	Drop the ban on hormone-fed beef
growth promoters	Drop the ban on ractopamine-fed beef and pork
chlorine	Drop the ban on chlorine-washed chicken and turkey
lactic acid	Drop the ban on lactic acid-washed beef beyond the carcass and on pork
mad cow	Drop the ban on tallow (which the corporations say is for producing biofuel, not for food)
trichinae	Eliminate the testing requirements for trichinae in pork
milk	Raise the number of somatic cells (from cows with mastitis) permitted in milk or drop the count requirement altogether
cherries	Drop or ease up the requirement to prove no brown rot
molluscs	Drop the ban on US-origin molluscs and shellfish other than scallops
endocrine disruptors	Refrain from banning chemicals (used in food production or packaging) that affect the endocrine system based on that property alone
Issue	**What EU agribusiness wants from the US**
mad cow	Drop the ban on beef and veal from EU territory
dairy	Eliminate US dairy import assessment and align standards instead. Make "Grade A" pasteurised milk requirements less cumbersome
bivalve molluscs	Accept EU standards of testing the flesh of oysters and other bivalve molluscs for E. coli rather than the water they were raised in
new plant products	Speed up the procedures of risk analysis

PESTICIDE

5-Endocrine Disrupter Pesticides – (potato)

MDPI -International Journal of Environmental Research and Public Health
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3138025/

Endocrine disrupting chemicals (EDC) are compounds that alter the normal functioning of the endocrine system of both wildlife and humans. A huge number of chemicals have been identified as endocrine disruptors, among them several pesticides. Pesticides are used to kill unwanted organisms in crops, public areas, homes and gardens, and parasites in medicine.

Worldwide consumption of pesticides for agricultural use is constantly increasing, rising from 0.49 kg/ha in 1961 to 2 kg/ha in 2004. Humans and wildlife are today continuously exposed to a number of pesticides via the environment (surface water, ground water, soil), food and drinking water.

Source:
http://ec.europa.eu/agriculture/envir/report/fr/pest_fr/report.htm#fig6;
http://faostat.fao.org/site/424/default.aspx#ancor;
http://www.goodplanet.info/eng/Food-Agriculture/Pesticides/Pesticides/(theme/266))

The WHO has reported that roughly three million pesticide poisonings occur annually, resulting in 220,000 deaths worldwide. In some cases, it has been suggested that diseases such as cancer, allergies, neurological disorders and reproductive disorders may be connected to pesticide exposure.

Many chemicals that have been identified as endocrine disruptors are pesticides. About 105 substances can be listed. Of these, 46% are insecticides, 21% herbicides and 31% fungicides; some of them were withdrawn from general use many years ago but are still found in the environment (ex. DDT and atrazine in several countries).

EDC in pesticides:
Acetochlor, Alachlor, Aldicarb, Aldrin, Atrazine, Bendiocarb, Benomyl, Bioallethrin, Bitertanol, Bupirimate, Captan, Carbaryl, Carbendazim, Carbofuran, Chlorothalonil, Chlordane, Chlordecone, Chlorfenviphos, Chlorpyrifos, Cypermethrin, Cyproconazole, DDT and metabilites, Deltamethrin, Diazinon, Dichlorvos, Dicofol, Dieldrin, Diflubenzuron, Dimethoate, Diuron, Endosulfan (sulphate, Insecticide), Endrin, Epoxyconazole, Fenarimol, Fenbuconazole, Fenitrothion, Fenoxycarb, Fenvalerate, Fluvalinate, Flusilazole, Flutriafol, Glysophate (Herbicide), HCB, HCH (lindane), Heptachlor, Hexaconazole, Isoproturon, Iprodione, Linuron, Malathion, Methiocarb, Methomyl, Methoxychlor, Metolachlor, Metribuzin, Mirex, Molinate, Myclobutanil, Nitrofen, Oxamyl, Parathion, Penconazole, Pentachlorophenol, Permethrin, Phenylphenol (Fungicide), Prochloraz, Procymidone, Propamocarb, Propanil, Propazine, Propiconaole, Propoxur, Prothiophos, Pyridate, Pyrifenox, Pyripyroxifen, Resmethrin, Simazine, Sumithrin, Tebuconazole, Tetramethrin, Tolchofos-methyl, Toxaphene, Triadimefon, Triadimenol, Tribenuronmethyl, Trichlorfon, Trifluralin, Vinclozolin,

Pesticide use in US potato industry

National Potato Council, US (promotes IPM)
http://nationalpotatocouncil.org/events-and-programs/environmental-stewardship/

2014 Potato Statistical Yearbook
http://nationalpotatocouncil.org/2014-potato-statistical-yearbook/

Monsanto & Bayer advertisement – (page 12)
http://nationalpotatocouncil.org/2014-potato-statistical-yearbook/#page/12

Potato facts
http://nationalpotatocouncil.org/potato-facts/

Pesticide use in potato
http://www.pesticide.org/get-the-facts/ncap-publications-and-reports/general-reports-and-publications/journal-of-pesticide-reform/journal-of-pesticide-reform-articles/potatoes.pdf

Project of PAN – What's on my food

http://www.whatsonmyfood.org/food.jsp?food=PO
35 pesticide residues found in potatoes by the USDA Pesticide Data Program:
- endosulfan sulfate (EDC)
- Pentachlorophenol (EDC)
- DDT

Project of HEAL - Health costs in the EU: How much is related to EDCs?

http://www.env-health.org/IMG/pdf/18062014_final_health_costs_in_the_european_union_how_much_is_realted_to_edcs.pdf

If EDCs contribute to only 2-5% of the total health costs from endocrine-related chronic diseases, EU policy change such as the phasing out of these hazardous substances and promoting safer alternatives could save Europeans up to €31 billion each year in health costs and lost productivity.

(Test year 2009, Pesticide Data Program, USDA – Department of Agriculture)

European EDC use in pesticide

http://www.efsa.europa.eu/en/search/doc/3694.pdf

No detailed data for EU pesticide use

The European Commission has banned diphenylamine (DPA) on fruit raised in the 28 European Union member states and has imposed tight restrictions on imported fruit. DPA, a growth regulator and

antioxidant, is applied after harvest to most apples conventionally grown in the U.S. and to some U.S.-grown pears, to prevent the fruit skin from discoloring during months of cold storage.

U.S. officials have not followed the Europeans in restricting either neonicotinoids or DPA.

While regulators and scientists debate these and other controversies about pesticide safety, EWG will continue to highlight foods that test positive for the most and the least amounts of pesticides.

CropLife on EU pesticide use (2013): EU Pesticide Regulation is likely to severely reduce UK potato production
https://croplife.org/wp-content/uploads/2014/05/EU-Pesticide-Regulation-Likely-to-Severely-Reduce-UK-Potato-Production.pdf

Table 1
Pesticides Used on Potatoes in the Pacific Northwest

	Estimated Pesticide Use (pounds per year)		
	Idaho	**Washington**	**Oregon**
HERBICIDES			
EPTC	772,000	197,000	83,000
Metalochlor	71,000	11,000	9,000
Metribuzin	167,000	40,000	13,000
Pendimethalin	105,000	44,000	24,000
Sethoxydim			1,000
Trifluralin	6,000	10,000	4,000
INSECTICIDES			
Azinphos-methyl		11,000	
Carbaryl		6,000	
Carbofuran	105,000	92,000	47,000
Dimethoate		7,000	
Disulfoton		100,000	37,000
Endosulfan	28,000		
Esfenvalerate	2,000	1,000	
Ethoprop	158,000	106,000	55,000
Fonofos	50,000	37,000	
Imidacloprid		6,000	1,000
Methamidophos	27,000	201,000	33,000
Permethrin	10,000	6,000	2,000
Phorate	378,000	70,000	37,000
Propargite		43,000	19,000
FUNGICIDES			
Chlorothalonil	276,000	510,000	131,000
Copper ammonium		4,000	1,000
Copper hydroxide	97,000	46,000	25,000
Cymoxanil			1,000
Dimethomorph		5,000	2,000
Iprodione	16,000	85,000	13,000
Mancozeb	162,000	367,000	109,000
Maneb	27,000	27,000	
Metalaxyl	22,000	17,000	7,000
Metiram		122000	
Propamocarb		18,000	5,000
Sulfur		229,000	19,000
Triphenyltin hydroxide	2,000	25,000	3,000
OTHER PESTICIDES			
Dichloropropene	3,214,000	4,995,000	2,114,000
Diquat	15,000	18,000	3,000
Maleic hydrazide		33,000	
Paraquat		7,000	3,000
Metam-sodium	8,501,000	8,927,000	1,914,000
Sulfuric Acid	17,382,000	2,446,000	1,563,000
TOTAL	31,593,000	18,869,000	6,278,000

Source: U.S. Dept. of Agriculture. National Agricultural Statistics Service. 1996. Agricultural chemical usage: 1995 field crops summary. Washington, D.C., Mar.

Table 2. Hazards of Pesticides Used on Potatoes

	Disrupts Hormones or Reproduction	Linked to Male Infertility	Causes Cancer	Residues Found in Food	Residues Found in Water
HERBICIDES					
EPTC	● (4)				● (22-24)
Metalochlor	● (4)		● (19)		● (22,23, 25)
Metribuzin	● (1,3)				● (22,23, 25)
Pendimethalin	● (2)		● (19)		● (23)
Sethoxydim	● (3)				
Trifluralin	● (1)		● (19)	● (21)	● (23)
INSECTICIDES					
Azinphos-methyl		● (9)		● (21)	● (23, 24)
Carbaryl	● (1)	● (10,11)	● (19)	● (21)	● (23, 25)
Carbofuran	● (4)	● (12,13)		● (21)	● (23, 25, 26)
Dimethoate	● (3)	● (14)	● (19)	● (21)	● (26)
Disulfoton	● (4)	● (15)		● (21)	● (23,26)
Endosulfan	● (1)	● (16)		● (21)	● (26)
Esfenvalerate	● (5)			● (21)	
Ethoprop				● (21)	● (23)
Fonofos	● (4)			● (21)	● (19)
Imidacloprid	● (6)				
Methamidophos	● (4)			● (21)	● (26)
Permethrin	● (4)	● (17)	● (19)	● (21)	● (23)
Phorate		● (18)		● (21)	● (27)
Propargite	● (3)		● (19)	● (21)	● (23)
FUNGICIDES					
Chlorothalonil	● (4)		● (19)	● (21)	● (26)
Copper ammonium					
Copper hydroxide					
Cymoxanil	● (7)				
Dimethomorph					
Iprodione	● (2)	● (19)	● (19)	● (21)	
Mancozeb	● (1)	● (20)	● (19)	● (21)	
Maneb	● (1)		● (19)	● (21)	
Metalaxyl				● (21)	● (26)
Metiram	● (1,3)				
Propamocarb	● (8)				
Sulfur					
Triphenyltin hydroxide	● (3)		● (19)		
OTHER CHEMICALS					
Dichloropropene			● (19)		● (24)
Diquat	● (4)				
Maleic hydrazide	● (4)				
Paraquat	● (4)				● (26)
Metam-sodium	● (3)		● (19)		
Sulfuric Acid					
SPROUT INHIBITORS					
Chlorpropham	● (4)			● (21)	
Thiabendazole	● (3)			● (21)	

References

1. Colborn, T., F. S. vom Saal, and A. M. Soto. 1993. Developmental effects of endocrine-disrupting chemicals in wildlife and humans. *Environ. Health Persp.* 101: 378-384.
2. U.S. EPA. 1997. *Special report on environmental endocrine disruption: An effects assessment and analysis*, Washington, D.C., EPA/630/R-96/012. Pp. 48-54;87-89.
3. U.S. EPA. 1994. Addition of certain chemicals; Toxic chemical release reporting; community right-to-know. *Fed. Reg.* 59(8): 1788-1859, Jan. 12.
4. U.S. EPA. Integrated risk information system (IRIS). http://www.epa.gov/ngispgm3/iris/
5. U.S. EPA. 1997. Fenvalerate; Pesticide tolerances. *Fed. Reg.* 62(228):63019-63027, Nov. 26.
6. U.S. EPA. Office of Pesticide Programs. 1994. Pesticide fact sheet: Imidacloprid. Washington, D.C., Mar. 18.
7. U.S. EPA. 1997. Cymoxanil; Pesticide tolerance for emergency exemptions. *Fed. Reg.* 62(93):26407-26412, May 14.
8. U.S. EPA. 1997. Propamocarb hydrochloride; Pesticide tolerance for emergency exemptions. *Fed. Reg.* 62(63):15615-15620, Apr. 2.
9. Lutz, H. and Lutz-Ostertag, Y. 1972. The action of different pesticides on the development of bird embryos. *In* Klingberg, M.A. et al (eds.). *Drugs and fetal development.* (Advances in Experimental Medicine and Biology. Vol. 27). New York, NY: Plenum Press.
10. Wyrobeck, A.J. et al. 1981. Sperm shape abnormalities in carbaryl-exposed employees. *Environ. Health Persp.* 40:255-265.
11. Shtenberg, A.I. and M.N. Rybakova. 1968. Effect of carbaryl on the neuroendocrine system of rats. *Fd. Cosmet. Toxicol.* 6:461-467.
12. Yousef, M.I. 1995. Toxic effects of carbofuran and glyphosate on semen characteristics in rabbits. *J. Environ. Sci. Health.* B30: 513-534.
13. Pant, N. et al. 1995. Effect of oral administration of carbofuran on male reproductive system of rat. *Hum. Exp. Toxicol.* 14:889-894.
14. Salem, M.H. et al. 1988. Effect of organophosphorus (dimethoate) and pyrethroid (deltamethrin) pesticides on semen characteristics in rabbits. *J. Environ. Sci. Health* B23:279-290.
15. U.S. Dept. of Health and Human Services. Public Health Service. Agency for Toxic Substances and Disease Registry. 1995. *Toxicological profile for disulfoton*, Aug. p. 65.
16. Pandey, N. et al. 1990. Studies on the genotoxicity of endosulfan, an organochlorine insecticide, in mammalian germ cells. *Mut. Res.* 242:1-7.
17. Eil, C. and B.C. Nisula. 1990. The binding properties of pyrethroids to human skin fibroblast androgen receptors and to sex hormone binding globulin. *J. Steroid Biochem.* 35:409-414.
18. Saxena, A.K. and K. Sarin. 1980. Histopathological and biochemical changes in he liver and testes of desert gerbil, after repeated exposures of Thimet (phorate). *Toxicology* 18:133-144.
19. U.S. EPA. Office of Pesticide Program. Health Effects Division. 1997. List of chemical evaluated for carcinogenic potential. Memo from William Burnam, Director, to Health Effects Division Branch Chiefs, et al. Washington, D.C., Feb. 19.
20. Hemavathi, E. and M.A. Rahiman. 1993. Toxicological effects of ziram, thiram, and Dithane M-45 assessed by sperm shape abnormalities in mice. *J. Toxicol. Exp. Health* 38:393-398.
21. U.S. Food and Drug Administration. Pesticide Program. 1995. Residue monitoring 1994. Washington D.C. *JOAC* 78, Sept./Oct.
22. U.S. Geological Survey. 1996. *Agricultural pesticides found in groundwater of the Quincey and Pasco basins.* Tacoma, Washington. Fact Sheet 240-95 Revised, July.
23. U.S. Geological Survey. 1996. *Are agricultural pesticides in surface waters of the Central Columbia plateau?* Tacoma, Washington. Fact Sheet 241-95, July.
24. U.S. Geological Survey and Washington State Department of Ecology, 1997. *Pesticides in selected small streams in the Puget Sound basin, 1987-1995.* Tacoma, Washington. Fact Sheet 067-97, June.
25. U.S. Geological Survey. 1996. *Pesticides in groundwater.* Sacramento, California. Fact Sheet 244-95.
26. U.S. EPA. Prevention, Pesticides and Toxic Substances. 1992. Pesticides in ground water database. A compilation of monitoring studies: 1971-1991. National summary. Washington, D.C., Sept.
27. U.S. Geological Survey. 1997. Pesticides in surface and ground water of the United States: Preliminary results of the National Water Quality Assessment Program (NAWQA). http:// water.wr.usgs.gov/pnsp/gwsw1.html, Aug.

GMO and Potatoes

GMO Compass

The GMO Compass website setting-up is financially supported by the EU within the European Commission's Sixth Framework Programme from 1 January 2005 until 28 February 2007. The European Commission and other EU agencies are not responsible for the content.
www.gmo-compass.org

Animation about EU decision on GMO
http://www.gmo-compass.org/flash/popup.php?lang=eng

http://www.gmo-compass.org/eng/grocery_shopping/crops/23.genetically_modified_potato.html

Over the last few years, potatoes have been losing importance as a food crop. The crop's prospects in the starch and chemical industry, however, have been growing for quite some time. For starch potatoes, taste isn't what's important. Instead, emphasis is placed on the quality and composition of the starch. An optimised starch potato could be making its way to fields in Europe soon. This new potato cultivar is genetically modified.

Only one in four potatoes grown in Europe actually gets eaten by people. Almost half end up being fed to livestock. The remaining one quarter are used as raw material in the production of alcohol and starch.

Starch industry

There are two types of potato GM modified starch composition.
Two types of starch:

- Amylopectin, making up 80 percent of the starch content in potatoes, consists of large, highly-branched molecules. Amylopectin makes starch water soluble and gives it its characteristic stickiness. It is very useful in the food, paper, and chemical industries as paste, glue or as a lubricant.
- Amylose is made up of long, chain-like molecules and is used predominantly in the production of films and foils.

Genetically modified amylopectin potatoes have been tested in field trials for several years. In the meantime, applications have been presented to European regulatory authorities for approving the cultivation of these potatoes as a renewable raw material for starch production. Because the post-processing residues would be fed to livestock, a request for the approval of the potatoes as feed has also been submitted. Starch-modified GM potatoes could be growing in European fields soon.

Potato starch is the basis of numerous food components (thickening and binding agent) and is the basic material for the process producing sugar from starch, from which many ingredients and supplements emerge.

Renewable primary products, energy crops

- 40% of the starch is processed in the non-food area: in particular in adhesives and lubricants, in paper and corrugated paper production (packaging, building materials).
- Potato starch can be used to produce energy through conversion to ethanol and methane.

Potato

http://www.gmo-compass.org/eng/database/plants/44.potato.html

Research	Fungal resistance, modified starch composition
Field trials	EU 293 USA 831, in other countries
Approvals	EU USA, Canada, five other countries
Cultivation	1999-2001 USA, Canada, Romania
Traits	Insect and virus resistance
Perspectives	Cultivation of GM starch potatoes in the EU since 2010; no exploitation as foodstuff. Commercial utilisation of GM potatoes is expected in Indonesia in the medium term.

Field trials with GM potatoes

EU	
Applications	293
Countries	Germany 76, The Netherlands 64, England 42, Sweden 34; Others in Spain, France, Denmark, Italy, Czech Republic, Finland, Portugal, Belgium, Austria, Poland, Ireland, Hungary
Period	1989-2010
Traits	Starch composition, fungal, nematode and virus resistance
Worldwide	
USA	831
Period	1989-2010
other countries	Canada, Argentina, New Zealand, China, Australia, India, Indonesia, South Africa

Utilisation of GM potatoes

Approvals in the EU		
	For cultivation	**As foodstuff/feed**
Application	1	1
Approval	1	1
Traits	Modified starch composition (exclusive formation of amylopectin)	
Approvals worldwide		
	For cultivation	**As foodstuff/feed**
USA	4	4
Canada	4	4
Australia		3
Japan		4
Korea		4
Philippines		3
Mexico		3
Traits	Insect resistance, virus resistance	
Listed are the different GM potato lines (Events).		
Cultivation		
EU	In 2010 starch potato *Amflora* is cultivated on 15 hectares in Germany, on 80 in Sweden and on 150 hectares in the Czech Republic. Introduction of phytophtora resistant potatoes is expected in 2015.	
USA	In 1999, approximately 25 000 hectares of genetically modified potatoes with resistance against insects and virus were cultivated in the USA and Canada. This cultivation was suspended in 2001.	
other countries	Canada, Romania 1999. Cultivation was not continued.	

2010: http://www.gmo-compass.org/eng/gmo/db/

(2015 update of website)

Status	Event	Company	Trait	Scope
	EH92-527-1	**Amylogen HB**	**Altered composition**	
	EH92-527-1	**BASF Plant Science**	**Altered composition**	
	AV43-6-G7	**AVEBE**	**Altered composition**	
	BPS-A1020-5	**BASF Plant Science**	**Altered composition**	
	PH05-026-0048	**BASF PlantScience**	**InsRes**	

Scope

Food and Feed
Import and processing
Cultivation

Current Status

Application submitted
Risk assessment report
Valid authorisation
Notified as "existing product" *
Authorisation no longer valid
Application for renewal of authorisation submitted
Renewal of authorisation, risk assessment report
Application withdrawn
Authorisation not accepted

* Approval granted based on pre-2003 regulations. "Existing products" are GMOs that were lawfully placed on the EU market before the entry into force of Regulation 1829/2003 on GM food and feed on 18 April 2004.

EH92-527-1

Authorisation expiration date	01/03/2020 In food and feed, only traces up to 0,9% are allowed. The European Court of Justice annuls the Commission`s decision. Press release 13/12/2013

Press release: 2013: Hungary v COM:
http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-12/cp130160en.pdf

Taking the view, however, that the Amflora potato presents a risk to human and animal health and also to the environment, Hungary brought an action for annulment of the Commission's authorisation decisions. France, Luxembourg, Austria and Poland intervened in the proceedings in support of Hungary.

See also:
CropLife America
European Crop Protection Association – ECPA

REACH – Registration, Evaluation, Authorisation, Restriction of Chemicals

Entered into force in 2007 and is the most strict chemical regulation on substances that exists. The European Chemicals Agency (ECHA) is based Helsinki.
In total: 143 000 chemical substances marketed in the EU were pre-registerd by December 2008 deadline under REACH which applies to all chemicals produced or imported in the EU.

Preliminary overview on governance and decision making on rules and regulation (ku)

Governance and decision making on rules and regulation				
Endocrine Disrupters Chemicals	REACH Sustainable Use of Pesticide Directives. Definition of Biocides (all non agri use)	REACH: no deadline for chemical definition	Sustainable Use of Pesticide: deadline for definition Biocides: also deadline for definition	Lead: DG SANCO Standing Committee
New regulation	Definition of EDC			
Maximum Residues Level (MRL)	Apples – DG SANCO Standing Committee : now lowest level, five times higher than in case of AT (EU MS)			What about TTIP Committee that supervises new legislation – consults and is informed about
New regulation on composition of residues –				

CIEL new report (20150 `Lowest Common Denominator: How the proposed EU US trade deal threaten to lower standards of protection from toxic pesticides.

82 Pesticides banned in the EU but allowed in the US

TABLE 1
82 pesticides banned in the EU, but allowed in the US

	Active Ingredient	Allowed in EU?	Allowed in US?	Hazardous Characteristics
1	1,3,-dichloropropene	No	Yes	US EPA Probable Carcinogen
2	Acephate	No	Yes	US EPA Possible Carcinogen, Suspected EDC
3	Acetochlor	No	Yes	CA Prop 65 Known Carcinogen, Suspected EDC
4	Acifluorfen	No	Yes	CA Prop 65 Known Carcinogen, Suspected EDC
5	Agrobacterium radiobacter K84	No	Yes	Inadequate Information
6	Alachlor	No	Yes	CA Prop 65 Known Carcinogen, Suspected EDC
7	Aldicarb	No	Yes (Phase out by 2018)	WHO Ia — Extremely Hazardous
8	Ametryn	No	Yes	Suspected EDC
9	Amitraz	No	Yes (Review ongoing)	Suspected EDC, CA Prop 65 Developmental Toxin
10	Anthraquinone/Antraquinone	No	Yes	CA Prop 65 Known Carcinogen
11	Atrazine	No	Yes (review scheduled for 2013)	Suspected EDC
12	S-Bioallethrin	No	Yes	Suspected EDC
13	Bromethalin	No	Yes	WHO Ia - Extremely Hazardous
14	Butralin	No	Yes	WHO III - Slightly Hazardous
15	Carbaryl	No	Yes	Suspected EDC, CA Prop 65 Developmental & Reproductive Toxin
16	Carbofuran	No	Yes (Documentation suggests all uses to be cancelled)	WHO Ib — Highly Hazardous, Suspected EDC
17	Chlorfenapyr	No	Yes	WHO II — Moderately Hazardous
18	Chlorthal-dimethyl (DCPA)	No	Yes	US EPA Possible Carcinogen, Suspected EDC
19	Cycloate	No	Yes	CA Prop 65 Developmental Toxin
20	Cyfluthrin	No	Yes (review pending since 2011)	WHO II — Moderately Hazardous, Suspected EDC
21	Diazinon	No	Yes (restricted uses in 2007)	WHO II — Moderately Hazardous, Suspected EDC
22	Dichlorvos (DDVP)	No	Yes	WHO Ib — Highly Hazardous, Suspected EDC
23	Dicrotophos	No	Yes (review pending since 2008)	WHO Ib — Highly Hazardous
24	Difethialone	No	Yes (Restricted to commercial users in May 2008)	WHO Ia — Extremely Hazardous
25	Dimethenamid	No	Yes (conditionally in 1993)	US EPA Probable Carcinogen
26	Disodium octaborate tetrahydrate	No	Yes	None Listed

TABLE 1
82 pesticides banned in the EU, but allowed in the US (continued)

	Active Ingredient	Allowed in EU?	Allowed in US?	Hazardous Characteristics
27	Endosulfan	No	Yes (Phase out to be complete July 31, 2016)	WHO II — Moderately Hazardous, Suspected EDC
28	EPTC	No	Yes	CA Prop 65 Developmental Toxin
29	Ethoxyquin	No	Yes	Suspected EDC
30	Ethylene oxide	No	Yes	IARC Known Carcinogen
31	Fenbutatin oxide	No (Expiry March 2014, Grace period - Dec. 2015)	Yes (review pending)	None listed
32	Fenithrothion	No	Unclear	WHO II — Moderately Hazardous, Suspected EDC
33	Fenpropathrin	No	Yes (review pending)	WHO II — Moderately Hazardous
34	Fentin hydroxide (TPTH)	No	Yes	CA Prop 65 Known Carcinogen, Suspected EDC
35	Ferbam	No	Yes	Suspected EDC
36	Flumetsulam	No	Yes (review pending)	None listed
37	Hexazinone	No	Yes	WHO III — Slightly Hazardous
38	Hydramethylnon	No	Yes	US EPA Probable Carcinogen
39	Imazethapyr	No	Yes	None Listed
40	Lactofen	No	Yes (review pending since 2007)	CA Prop 65 Known Carcinogen
41	Maleic hydrazide and its salts	No	Yes	IARC Unclassifiable
42	Methoprene	No	Yes	Suspected EDC
43	Methyl isothiocyanate	No	Yes	WHO II — Moderately Hazardous, CA Prop 65 Developmental and Reproductive Toxin
44	Metolachlor	No	Yes	US EPA Possible Carcinogen, Suspected EDC
45	MSMA	No	Yes	None Listed
46	Novaluron	No	Yes (conditionally)	None Listed
47	Oxydemeton-methyl	No	Yes	WHO Ib - Highly Hazardous, CA Prop 65 Reproductive Toxin
48	Paraquat Dichloride	No	Yes	WHO II - Moderately Hazardous, Suspected EDC
49	Peroxyacetic acid (peracetic acid)	No	Yes	None Listed
50	Permethrin	No	Yes	US EPA Likely Carcinogen, Suspected EDC
51	Phenothrin	No	Yes	WHO Ia — Extremely Hazardous
52	Phorate	No	Yes	WHO Ia — Extremely Hazardous
53	Potassium Silicate	No	Yes	None Listed
54	Prometryn	No	Yes	Suspected EDC
55	Propargite	No	Yes	US EPA Probable Carcinogen
56	Quintozene (PCNB)	No	Yes	US EPA Possible Carcinogen, Suspected EDC

TABLE 1

82 pesticides banned in the EU, but allowed in the US (continued)

	Active Ingredient	Allowed in EU?	Allowed in US?	Hazardous Characteristics
57	Resmethrin	No	Yes	CA Prop 65 Known Carcinogen & Developmental Toxin, Suspected EDC
58	Rotenone	No	Yes	WHO II — Moderately Hazardous
59	Sethoxydim	No	Yes	WHO III — Slightly Hazardous
60	Silver nitrate	No	Yes	None Listed
61	Simazine	No	Yes	Suspected EDC
62	Sodium Carbonate	No	Yes	None Listed
63	Sodium dimethyldithiocarbamate	No	Yes	CA Prop 65 Developmental Toxin
64	Strychnine	No	Yes (with restrictions)	WHO Ib — Highly Hazardous
65	TCMTB	No	Yes	US EPA Probable Carcinogen
66	Tebuthiuron	No	Yes (review pending since 2010)	WHO III — Slightly Hazardous
67	Tempehos	No	Registered (review proposed)	None Listed
68	Terbacil	No	Yes	CA Prop 65 Developmental Toxin
69	Terbufos	No	Yes	WHO Ia — Extremely Hazardous
70	Terbutryn	No	Unclear	US EPA Possible Carcinogen, Suspected EDC
71	Tetramethrin	No	Yes	US EPA Possible Carcinogen, Suspected EDC
72	Thidiazuron	No	Yes	None Listed
73	Thiobencarb	No	Yes	WHO II — Moderately Hazardous, Suspected EDC
74	Thiodicarb	No	Yes	US EPA Probable Carcinogen
75	Tolylfluanid	No	Yes (as residue on imported products)	US EPA Likely Carcinogen
76	Tralomethrin	No	Yes (review pending since 2010)	WHO II — Moderately Hazardous
77	Triadimefon	No	Yes	US EPA Probable Carcinogen, Suspected EDC
78	Tribufos	No	Yes	CA Prop 65 Known Carcinogen, Suspected EDC
79	Trichlorfon	No	Yes (for non-food and non-feed uses)	Suspected EDC
80	Trifluralin	No	Yes	US EPA Possible Carcinogen, Suspected EDC
81	Triforine	No	Yes	CA Prop 65 Developmental Toxin
82	Trimedlure	No	Yes	None Listed

SOURCES: Information compiled from the European Commission, EU Pesticide Database; National Pesticide Information Retrieval System, Center for Environmental and Regulatory Information Systems, Purdue University; Pesticide Action Network, Pesticide Database; International Agency for Research on Cancer Carcinogen List; US National Toxicology Program Carcinogen List; State of California Prop 65 Chemical List; European Commission, EU prioritization list for endocrine disruptors; The Endocrine Disruption Exchange (TEDX); and US EPA Toxic Release Inventory List.

ANNEX

AGRICULTURAL TRADE FLOWS

Annex 1: Agricultural Tariff peaks

http://madb.europa.eu/madb/euTariffs.htm#Browse
DG Trade, Market Access Database, summarised by k.ulmer

Market Access

		Tariff for US	Tariffs for third country duty	
0201 Meat				
HS: 0201 1000 10	High quality : beef and meat (fresh or chilled)	20 % Subject to import licence and certificate	12.8 % + 176.8 EUR/100 kg	
HS 0202 10 00 10	High quality beef and veal (frozen)	20%	Idem	
HS 0209 10 11	Pig, fresh, chilled, frozen, salted or in brine		21.4 Euro / 100kg	
HS 0209 10 19	Pig dried or smoked		23.6 Euro/100kg	
0401 Milk and cream				
0401 40 10 90	Milk		57.5 Euro/100 kg	
04051001	Natural butter		189.6 or - 94.8 Euro/100 kg	
0406 Cheese Curd				
0406 10 20	Fresh		185.2 Euro 13 Euro 92.6 Euro/100kg	
0207 Poultry	70% chicken	149 Euro/100kg Certificate, licence	149 Euro 29.9 kg (ERGA Omnes – towards everyone)	

INDIRECT LAND USE CHANGES
Comparing Family Farming in EU and US

Table 1 – Comparative features of EU 27 and US agriculture			
	UE27	USA	**Global South**
Total Population in 2010, in millions (M)	500	310	
Rural Population in 2010	131	55	600 million peasant units (40 - 60 % rural income from FF
Agricultural Population in 2010	21,745	5,148	2 to 4 billion people
Active agricultural workers in million UTA (Active agricultural workers, and equivalent to full time)	10,714	2,509	3 billion FF
SAU (agricultural surface used) in M ha	187	411	EU virtuel land use of: 35 million hectare..
Arable land and permanent cultures, M ha	119	162	
Average size of agricultural surface used (SAU) of exploitations (2007) in ha	12,6 ha	169 ha	< = 2 hectare
Number of exploitations (in M in 2007)	13,700	2,204	425 million farm households
UTA per exploitation	0,78	1,17	
Source : FAOSTAT; * UTA : actif agricole en équivalent plein temps - (Table taken from J Berthelot 2013)			Figures on Global South by K.Ulmer – from FAO but subject to confirmation

INDIRECT LAND USE CHANGES

www.2000m2.eu

The EU exports 14 mio he of land use, while importing 49 mio he. In 2007/2008, the virtual net import of land amounted to almost 35 mio he. This is an increase of almost 10 mio he (40 %) compared to 1999/2000. As a result, the EU is using appr. one third of its own utilized arable area from outside its own territory, equivalent to the entire territory of Germany. (APRODEV 2013)

State of Soil

Global soil week fact sheets
http://globalsoilweek.org/wp-content/uploads/2013/10/GSW_factsheet_Fertile-Soils_en.pdf
12% of earth surface is soil
25% of earth surface is already degraded
2.5 cm layer of fertile humus soil takes 500 years of formation
Currently, each human being has 0.22 he at h/is disposal (in 1960, that was 0.5 he)
24 bn tons of soil are lost to erosion every year
In Rwanda, 1.4 mio of tons is lost every year (1.9% of GDP)

…

2% of land is owned by women
1% of women only own land
In 2004, EU virtual land import was 370 mio ha while exporting only 37 mio ha. Net import is over 330 mio ha ie 60% of the land area needed by EU is outside its own area. Germany alone had net import of 77 mio ha of land in 2004. We are living above our means. (Europe's Global Land Demand, 2004, SERI 2011)

United Nations

A/HRC/26/31

General Assembly

Distr.: General
1 April 2014

Original: English

Human Rights Council
Twenty-sixth session
Agenda item 3
Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, Anand Grover

Unhealthy foods, non-communicable diseases and the right to health

Summary

In the report submitted to the Human Rights Council pursuant to its resolution 24/6, the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health draws links between unhealthy foods and diet-related non-communicable diseases (NCDs). The Special Rapporteur highlights the urgent need for States to address structural changes in the food environment, which negatively impact individualsô enjoyment of the right to adequate and nutritious food ï an underlying determinant of the right to health. Global trade, increased foreign direct investment (FDI) in the food sector and the pervasive marketing of unhealthy foods have increased the consumption of unhealthy foods, which have been linked to diet-related NCDs.

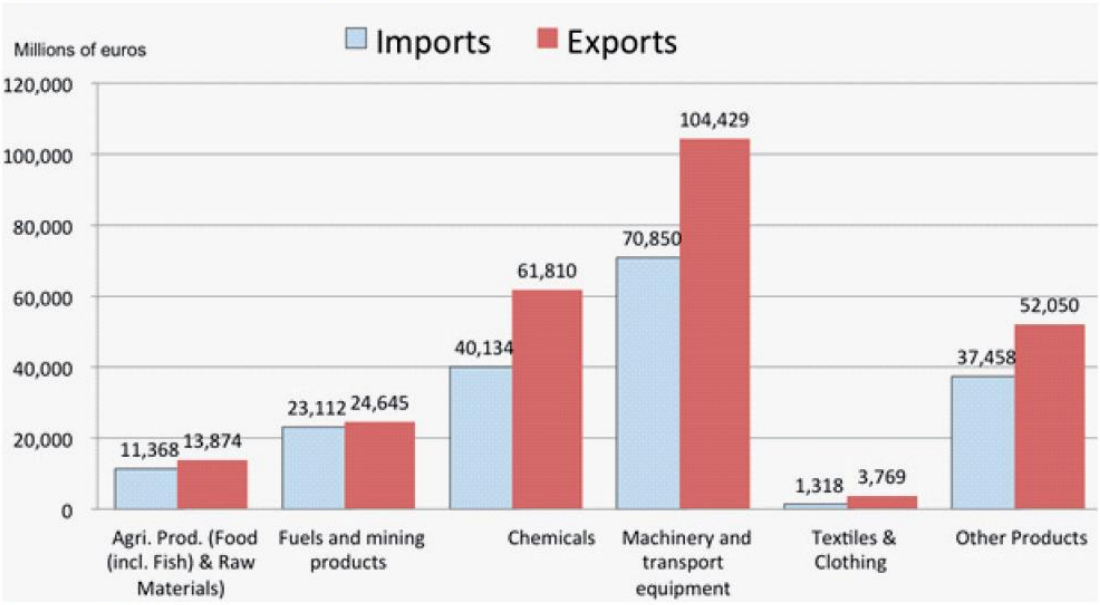
The Special Rapporteur outlines a number of policies to increase the availability and accessibility of healthier food options, including through fiscal policies and the regulation of marketing and promotion of unhealthy foods, as well as increasing information and awareness about the health risks posed by unhealthy foods. He observes Statesô obligations in ensuring the respect, protection and fulfilment of the right to health, and points to the responsibilities of the food industry in refraining from producing, marketing and promoting unhealthy foods. He also stresses the need for various accountability and remedial mechanisms by which individuals can seek redress to violations of their right to health, and underlines the importance of international assistance and cooperation in the prevention and reduction of the increasing burden of diet-related NCDs.

The Special Rapporteur concludes his report with a set of recommendations, aimed at States and the food industry, to take concrete steps to reduce the production and consumption of unhealthy foods and increase the availability and affordability of healthier food alternatives.

DATA:

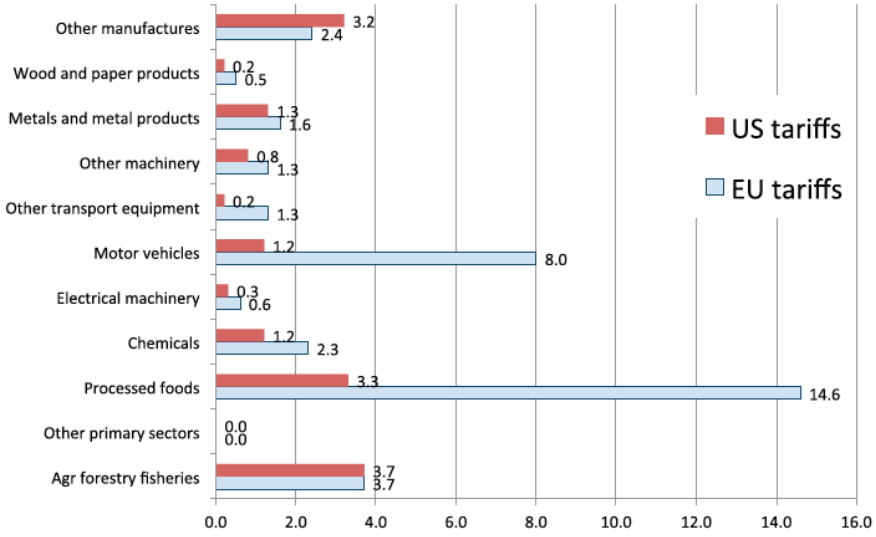
Source: Eurostat in CEPR 2013

Figure 1 EU trade in goods with the US by sector (in million euros), 2011



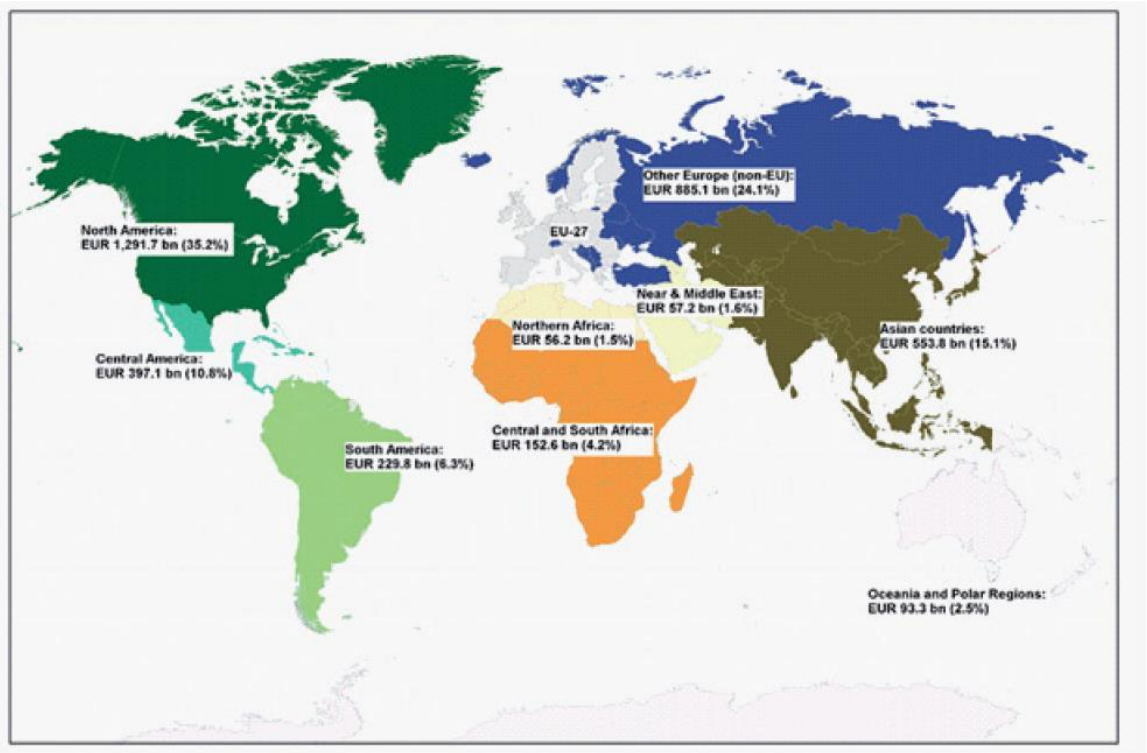
Source: Eurostat

Figure 9 Trade Weighted Applied (MFN) average tariff rates 2007



Source: WTO, CEPII, UNCTAD mapped to GTAP8

Figure 3 EU27 outward stocks of FDI, 2010



Source: Eurostat.

CGE Models (CEPR/ECORYS)

The NTB estimates involved a two-part survey as a first step. The survey was conducted on firms in the EU and US engaged in trade, and firms in the EU and US engaged in FDI. They were asked both detailed questions about NTBs, and a more general set of questions about overall market access conditions.[8] In cases where NTBs were identified, companies were asked about the relative importance of such barriers. Firms also provided a comprehensive general measure of NTB-related market access (the combined impact of all barriers) in the form of a ranking scaled from 0 to 100. With the overall ranking question, 0 indicated that there were no NTBs of any type, and 100 meant there were prohibitively high NTBs. The business survey restrictiveness indicators were then crosschecked against OECD (2007) restrictiveness indicators and against the Product Market Regulation (PMR) indexes. For the service sectors the combination of the OECD restrictiveness indicators and the survey results were used. The resulting measures are summarised in Table 1 below. The firm rankings are bilateral (for example an American firm in France might give a different ranking than a German firm in France).

The reported NTB rankings (the NTB index) on goods on both sides of the Atlantic are generally higher than on services, ranging from 20 per cent to 56 per cent. The highest perceived NTB levels were found on the aerospace and space industry. On goods exported to the US, machinery also exhibits high levels of NTBs, while the lowest levels are reported for pharmaceuticals. For goods exported from the US, high levels of NTBs were reported for chemicals, cosmetics and biotechnology. Lower levels of NTBs were reported for electronics, iron, steel and metal products.

Table 1 Perceived NTB index by business (index between 0-100)

Sector	EU exports to the US	US exports to the EU
Services Sectors:		
Travel	35.6	17.6
Transport	39.9	26.3
Financial Services	29.7	21.3
ICT	20.0	19.3
Insurance	29.5	39.3
Communication	44.6	27.0
Construction	45.0	37.3
Other Business Services	42.2	20.0
Personal, Cultural and Recreational Services	35.8	35.4
Goods Sectors:		
Chemicals	45.8	53.2
Pharmaceuticals	23.8	44.7
Cosmetics	48.3	52.2
Biotechnology	46.1	50.2
Machinery	50.9	36.5
Electronics	30.8	20.0
Office, Information and Communication Equipment	37.9	32.3
Medical, Measuring and Testing Appliances	49.3	44.5
Automotive Industry	34.8	31.6
Aerospace and Space Industry	56.0	55.1
Food and Beverages	45.5	33.6
Iron, Steel and Metal Products	35.5	24.0
Textiles, Clothing and Footwear	35.6	48.9
Wood and Paper, Paper Products	30.0	47.1

ECOYRS (2009)

5.2.3.3. Natural Resource Usage (Land intensity)

We now take a look at the resulting effect on the land use. In the model, land is an explicit factor, like capital and labour. Increase in value added in sectors using land translates into its more intensive use (more output per unit of land). Alternatively, in sectors where activities fall, there will be a drop in land use intensity. By this we mean there is less capital, labour, and inputs such as fertilizers in use on a given piece of land when intensity falls. Our estimates of changes in land use intensity (based on total value added activity for a fixed stock of land) are summarized in Table 40 below.

Table 40 Changes in land use (in per cent), 2027 benchmark, 20 per cent direct spill-overs

	Less ambitious	Ambitious
European Union	0.05	0.06
United States	-0.01	0.00
Other	0.00	0.01
Other OECD, high income	-0.01	-0.01
East Europe	0.02	0.03
Mediterranean	0.03	0.04
China	0.01	0.03
India	0.00	0.01
ASEAN	-0.04	-0.07
MERCOSUR	0.01	0.02
Low Income	0.00	0.00
Rest of World	0.01	0.01
Total	*0.00*	*0.01*

Source: CGE calculations.

The resulting impact from removing barriers to trade between the EU and the US on the use of natural resources is negligible. The expected changes are practically zero in all regions, including the EU and the US. These negligible results indicate that the liberalisation measures will not impact significantly on land use in any of the economies

Table A4 HS-2 Classification, top 2 per cent of tariff lines

HS-2	description	share of lines	total share	tariff rate
	U.S. top 2 per cent of tariff lines			
24	Tobacco and manufactured tobacco substitutes	0.383	0.383	43.2
23	Residues & waste from the food indust; prepr ani	0.172	0.554	23.2
4	Dairy prod; birds' eggs; natural honey; edible pr	2.160	2.714	17.9
	EU top 2 per cent of tariff lines			
23	Residues & waste from the food indust; prepr ani	0.531	0.531	71.0
2	Meat and edible meat offal	1.033	1.563	46.6
4	Dairy prod; birds' eggs; natural honey; edible pr	1.353	2.916	46.3