Case Studies

Banned Persistent Air Pollutants (POP) Leakage

Ex: DDT



https://youtu.be/gtcXXbuR244



Calendar page for March 1945 (Reeve 88266-25), National Museum of Health and Medicine



Calendar page for July 1944 (Reeve 88266-18), National Museum of Health and Medicine

#value

military cultural medical



Diagram of Atabrine manufacture and distribution (Reeve 75846), National Museum of Health and Medicine



#circulation

Transport of contaminants int and within the Arctic. (MacDonald et al, 2005) ©AMAP



#storage

Links:

General information on DDT:

History and Impacts of the Pesticide DDT: <u>https://www.thespruce.com/what-is-ddt-history-impacts-1708897</u>

Shoot to Kill: Control and Controversy in the History of DDT Science: <u>https://web.stanford.edu/group/sjph/cgi-bin/sjphsite/shoot-to-kill-control-and-controversy-in-the-history-of-ddt-science/</u>

DDT: http://www.popstoolkit.com/about/chemical/ddt.aspx

Stockholm Convention on POP: <u>http://chm.pops.int/Implementation/PublicAwareness/PressReleases/</u> <u>AmendmentsentryintoforceGeneva,26August2010/tabid/809/Default.aspx</u>

Lecture slides on artic haze and POP (Lakehead University): <u>https://www.lakeheadu.ca/sites/default/</u> <u>files/uploads/53/outlines/2015-16/GEOG3331/3331_Lecture15_ArcticPollution_W16%20%281%29.pdf</u> Silent Spring by Rachel Carson (1962)

Counter-arguments (fake news?): The Truth About DDT and Silent Spring https://www.thenewatlantis.com/publications/the-truth-about-ddt-and-silent-spring https://industrialprogress.com/the-story-of-ddt/

Scientific Papers:

- * Climate change and global cycling of persistent organic pollutants: A critical review [pdf]
- * Atmospheric concentrations and loadings of organochlorine pesticides and polychlorinated biphenyls in the Canadian Great Lakes Basin (GLB): Spatial and temporal analysis (1992e2012) [pdf]

* Atmospheric transport of persistent organic pollutants (POPs) to Bjørnøya (Bear island): <u>http://</u> <u>citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.513.1164&rep=rep1&type=pdf</u>

* Effects of age, sex, and persistent organic pollutants on DNA methylation in children: <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4410811/</u>

* Temporal trends of Persistent Organic Pollutants (POPs) in arctic air: 20 years of monitoring under the Arctic Monitoring and Assessment Programme (AMAP) [pdf]

https://youtu.be/aJXJRNB-5kk

Inextinguishable Fire, Harun Farocki (1969)

High-yielding varieties (HYVs) Leakage



Ex: IR8 - the 'miracle' rice



"During the last half of the year, more than 2,350 Filipino farmers came to IRRI and received 2 kg of IR8 free of charge. This distribution had a major impact on its spread—farmers who saw its superior performance on neighbors' fields asked for some seed to try on their own land." -<u>http://irri.org/ir8</u>

"Poorer farmers, however, often have not been able to provide the required growing conditions and therefore have obtained even lower yields with "improved" grains than they had gotten with the older strains that were better adapted to local conditions and that had some resistance to pests and diseases. Where chemicals are used, concern has been voiced about their cost—since they generally must be imported—and about their potentially harmful effects on the <u>environment</u>."

-https://www.britannica.com/topic/agriculture/New-strains-genetics#ref311960

"In the 1950s and 1960s development agencies overwhelmingly focused their efforts on the rural areas of the Global South. The countryside, where the vast majority of the world's poorest lived, seemed the most likely source of communist insurgency. Indeed, in 1949 the Chinese Communist Party had risen to power on a tide of peasant support. These rural areas appeared to embody a pre-capitalist social and economic order. Many development projects aimed to erase this order, eliminate the grievances that might lead to rebellion, and integrate the postcolonial nations and their peasant populations into the global capitalist economy."

-http://etheses.lse.ac.uk/3267/1/Toner_Counter-Revolutionary_Path.pdf (p101)



RICE CHILD (STIRRINGS) (2011/2014), by Elaine Gan - http://elainegan.com/riceDarc.html

Links:

History and Impacts:

- * <u>https://www.britannica.com/topic/agriculture/New-strains-genetics#ref311960</u>
- * <u>https://www.moma.org/interactives/exhibitions/2013/designandviolence/miracle-rice-international-rice-research-institute/</u>
- * <u>https://www.grain.org/article/entries/240-irri-s-15-tonne-super-rice</u>
- * Hungry World: http://www.hup.harvard.edu/catalog.php?isbn=9780674725812
- * Geopolitics and the Green Revolution: Wheat, Genes, and the Cold War, J. Perkins (1997)
- * First the Seed: The Political Economy of Plant Biotechnology, 1492-2000, J. R. Kloppenburg (1988)

Glowing reviews about the 'green revolution':

- * The new green revolution: https://www.economist.com/news/briefing/21601815-another-green-revolution-stirring-worlds-paddy-fields-bigger-rice-bowl
- * Miracle Rice: <u>https://livinghistoryfarm.org/farminginthe50s/crops_17.html</u>

Scientific Papers:

* Genealogy of the "Green Revolution" gene in rice: <u>https://www.jstage.jst.go.jp/article/ggs/</u> 80/5/80_5_351/_article

Project mapping rice genealogy:

Rice Child text: <u>http://elainegan.com/files/ganElaine-riceChild-wom.pdf</u> Project documention: <u>http://elainegan.com/riceDarc.html</u> Map: <u>http://elainegan.com/riceDarc/index.html</u> Phosphate Leakage



Arial view, phosphate trail from mine to port (photo: <u>http://www.conveyorbeltguide.com/examples-of-use.html</u>)



Bou Craa conveyor belt from the phospahe mine, 2013 © jbdodane.com (https://www.flickr.com/photos/jbdodane/8549951181)



Conflict mineral - Saharawi people protest http://globalmonitoringcenter.com/33546/s/natural-resources





https://afrika.dk/sites/afrika.dk/files/p_for_plunder_2014_web.pdf

Potash Corporation of Saskatchewan Inc (POT.TO)



https://www.reuters.com/article/fertilizer-phosphate-idAFN2223379920100922 & https://www.reuters.com/finance/stocks/overview/POT.TO

#storage?

Links:

History and Impacts:

Farmageddon: <u>http://www.eco-action.org/dod/no7/40-53.html#b16</u>

https://afrika.dk/sites/afrika.dk/files/p_for_plunder_2014_web.pdf

https://the-sieve.com/2013/12/19/the-worlds-longest-conveyor-belt/

https://en.wikipedia.org/wiki/2007%E2%80%9308 world food price crisis

https://en.wikipedia.org/wiki/Bou Craa

https://en.wikipedia.org/wiki/Moroccan_Western_Sahara_Wall

https://en.wikipedia.org/wiki/Madrid Accords

http://www.wsrw.org

http://www.water-research.net/index.php/phosphate-in-water

'War & Refugees: The Western Sahara Confiict', ed. R. Lawless & L.Monahan, Pinter Publishers, London 1987

Phosphate commodity trading:

http://phosphorusfutures.net/

http://www.reuters.com/article/fertilizer-phosphate-idAFN2223379920100922

See additional Green Revolution links from HYVs case.

Carbon Leakage





1. Pfeffer Physiologie quoted by Yost Pflanzenphysiologie 1913, pg.151. 2. F.W. ClarKe, Data of Geochemistry 1920,pg.49. Figures without denomination are metric tons CO2 per annum. Figures with denomination are metric tons CO2 actually present.

FIG. 47. CIRCULATION OF THE ELEMENTS IN NATURE. THE CARBON CYCLE

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Carbon Emissions Futures - Dec 17 (CFI2Z7)



https://uk.investing.com/commodities/carbon-emissions-historical-data



Bio-diesel buses launches at KSRTC bus depot at Shanthinagar, in Bengaluru I NAGARAJA GADEKAL

Links:

History and Impacts:

- * Climate change and carbon markets: a panoramic history <u>http://eprints.lse.ac.uk/37397/1/</u> <u>Climate change and carbon markets a panoramic history(author).pdf</u>
- * A short history of carbon trading The Corner House <u>http://www.thecornerhouse.org.uk/sites/</u> <u>thecornerhouse.org.uk/files/carbonDDch2.pdf</u>
- * 1st Pongamia example: <u>http://www.downtoearth.org.in/coverage/pongamia-power-enables-adilabad-villagers-to-export-carbon-credits-to-germany-13165</u>
- * Production of Bio-fuel from Pongamia and its Performance on Ci-engine: <u>https://</u> www.ripublication.com/ijeem_spl/ijeemv4n6_12.pdf
- * The politics of carbon markets: an introduction: <u>http://www.tandfonline.com/doi/full/</u> 10.1080/09644016.2012.688353
- * Carbon Pricing a Critical Perspective: <u>https://drive.google.com/file/d/</u> <u>18bfpaO4f8l4e9CmJPRL99FstaYqKthxV/view</u>
- * <u>https://globalcanopy.org/sites/default/files/documents/resources/</u> <u>LittleBookofLegalFrameworksforREDD+.pdf</u>
- * http://geographical.co.uk/places/forests/item/2173-archive-redd-or-dead
- * https://www.giz.de/expertise/downloads/giz2011-en-making-redd-work.pdf
- * <u>https://www.tni.org/en/article/to-reject-redd-and-extractive-industries-to-confront-capitalism-and-defend-life-and</u>

Carbon trading:

- * <u>http://carbonmarketwatch.org/</u>
- * http://valuing-nature.net/research
- * http://www.worldbank.org/en/topic/climatefinance

FRAUD

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