



February 2016

CHEM Trust - Chemicals, Health and Environment Monitoring Trust

A BACKGROUND DOCUMENT

Legal & Financial:

CHEM Trust is a UK charity, registered on 1st March 2007, number 1118182.

CHEM Trust is also a limited company, incorporated on 13th September 2006, number 5933897.

CHEM Trust is currently financially supported by The Esmée Fairbairn Foundation, the Waterloo Foundation, The Polden-Puckham Foundation, The European Environment & Health Initiative, The Orp Foundation, previously by The Garfield Weston Foundation, The Ashden Trust, Greenpeace Environmental Trust and set up with original seed-funding by WWF-UK. Other funders wish to remain anonymous. Our only vested interest is to protect humans and wildlife.

<http://www.chemtrust.org.uk/our-funders/>

CHEM Trust is supported by an excellent Board of Trustees – Oliver Smith (Chair & governance), Nigel Haigh OBE (EU policy), Les Jones OBE (finance), Debbie Tripley (legal) and Sarah Oppenheimer (chemicals policy and fundraising).

<http://www.chemtrust.org.uk/trustees/>

How CHEM Trust came into being – the WWF link:

In the early 1990's concern about the effects of chemicals escalated as research showed that many man-made substances, called endocrine disruptors (EDCs), also called hormone disruptors, could mimic or disrupt the action of hormones.

In 1991, Theo Colborn, co-author of the ground-breaking book, *Our Stolen Future* <http://www.ourstolenfuture.org/aboutosf.htm>, and a Senior Scientist with WWF-US, gathered a group of scientists together, and in 1992 the famous Wingspread Consensus Statement on hormone disruptors was published.

<http://www.ourstolenfuture.org/consensus/wingspread1.htm> This alerted the world with its prediction that:

“Unless the environmental load of synthetic hormone disruptors is abated and controlled, large scale dysfunction at the population level is possible”.

These scientists detailed that many wildlife populations were already affected by hormone disruptors, and that the impacts included:

- thyroid dysfunction in birds and fish;
- decreased fertility in birds, fish, shellfish and mammals;

- decreased hatching success in birds, fish and turtles;
- gross birth deformities in birds, fish and turtles;
- metabolic abnormalities in birds, fish and mammals;
- behavioural abnormalities in birds;
- de-masculinisation and feminisation of male fish, birds and mammals;
- de-feminisation and masculinisation of female fish and birds;
- and compromised immune systems in birds and mammals.

The connection between effects in wildlife and the likely effects humans were also noted.

Initially the concerns about the chemicals threat to biodiversity were addressed in the Marine Unit of WWF-UK. However, in 1996/7, WWF-UK launched its Toxic Programme in earnest, directed and led by Elizabeth Salter Green and with Gwynne Lyons as the technical expert.

The WWF-UK Toxics Programme was extremely successful with many landmark activities - a few of which are outlined below:

- In 1996, Theo Colborn was invited to the UK to launch her book, "Our Stolen Future".
- In May 1997, WWF and GLOBE (Global Legislators Organisation for a Balanced Environment) organised a conference on endocrine disrupting chemicals in the European Parliament.
- Both the above activities led to the European Parliament writing an 'Own Initiative Report' on EDCs (Report EP SACO 100EN, October 1997).

The WWF-UK Toxics Programme staff provided significant input and scientific knowledge to this report by MEP Kirsten Jensen, which helped pave the way for

- i) EDCs to be included in the new EU REACH (Registration, Evaluation and Authorisation of Chemicals) Regulation on industrial chemicals
- ii) the large budget (145 million Euros) that the Commission has subsequently provided for research into endocrine disruption
- iii) the EU Strategy on Endocrine Disruptors (COM ((1999)) 706), and
- iv) the EU Strategy on Environment and Health.

- WWF was the main NGO working on EDCs and its lobbying also helped secure the European Parliament Committee on the Environment, Public Health and Consumer Policy, Public Hearing on Endocrine Disruptors of April 2000.
- The Copenhagen Charter set out 5 key demands for the new EU Chemicals Regulation. This was launched in October 2000 and was conceived by WWF-UK and Friends of the Earth. It went on to gain wide support with environmental and health groups working in other EU Member States.
- WWF-UK launched several scientific reports on various issues. These received much media coverage and gave WWF-UK a credible voice in policy discussions in the UK, the EU, and at UNEP negotiations on Persistent Organic Pollutants (Stockholm Convention 2001). Reports have included: Chemical Trespass: A toxic Legacy (a review of chemicals found in breast milk), which gave WWF global media coverage including Australia, NZ, Asia, Brazil, N America and Europe.

From 2002 - 2006, the WWF-UK Toxics Programme intensified its work and embarked upon the Chemicals and Health Campaign, with the specific goal of

ensuring the proposed new EU chemicals legislation, REACH, delivered on its promise to protect humans and wildlife.

Some of the WWF-UK Toxics Programme Chemicals and Health Campaign's notable achievements included:

- A Chemical Petition with the WI (Women's Institute) and Co-operative Bank to No 10 Downing Street, and 'I am a chemical dump' demonstration in Westminster.
- Biomonitoring Reports: Many sequential studies were undertaken to investigate and highlight the chemical contaminants found in humans. Major reports included contaminants found in:-
 - i) 250 people throughout UK
 - ii) European Environment Ministers & MEPs
 - iii) three generations of UK families
 - iv) cord blood (babies) and
 - v) celebrities.
- The biomonitoring reports helped move the chemicals regulation debate from purely a "costs & jobs" focus to one where the benefits to health and the environment were also highlighted. Media coverage included the Radio 4 Today Programme, BBC, ITV, CH4 and CH5 TV news, Richard and Judy, and front pages in the Daily Mail, Telegraph and Guardian.
- Food Testing Report; 27 food products from 7 EU Nations were tested for certain contaminants. Again, very high media coverage was achieved including the Today Programme, national & international TV and newspapers.
- Scientists' Declarations:-
 - i) In 2002, The Chemicals and Health Campaign 'Foundation' Declaration was signed by many scientists.
 - ii) In 2006, the 'Helsinki Declaration' also orchestrated by WWF-UK, was launched. This was signed by many well-respected scientists and specifically focussed on securing controls for EDCs in REACH, the new EU chemicals Regulation.
- Speaking Engagements: Over the years Elizabeth Salter Green and Gwynne Lyons have addressed many conferences (eg. CHEMCON, the largest global industry conference, and the 2006 European Commission's Helsinki conference on EDCs).

Back in 2007, in recognition of the growing concerns about the health impacts, WWF-UK felt the time was right to launch a new charity to protect both wildlife and humans from the harmful chemicals. CHEM Trust, (Chemicals, Health and Environment Monitoring Trust) was therefore set up in April 2007 by Elizabeth Salter Green as Director and Gwynne Lyons as Policy Director, with a great deal of help and seed-funding from WWF-UK.

In the early days, industry appeared to try and play down the issue. Now 20 years later, the concern of the public and of scientists working in the field is ever increasing. For example, the Endocrine Society, the oldest and most respected scientific organisation working on hormone science and human health, published its latest statement on EDCs in 2015 highlighting concerns for exposure to these chemicals. <http://press.endocrine.org/doi/10.1210/er.2015-1093>

Studies now show the adverse impacts of man-made chemicals on wildlife species. Evidence is growing about the possible links between certain chemicals, particularly

hormone disrupting chemicals and human health impacts such as cancer, reproductive problems, birth defects, asthma, allergies, behavioural problems, disruption of infant brain development, cardiovascular disease, diabetes & obesity.

Humans are exposed to chemicals through the food chain and from the vast array of consumer products in society; pesticides in food, parabens in cosmetics, Bisphenol A and phthalates in plastics, brominated flame retardants in soft furnishings and electronic products and perfluorinated stain repellents and water-proofers in sofas, cooking equipment and outdoor wear – to name but a few. Wildlife, too, are exposed to the same chemicals via, for example, factory discharges, sewage effluents, leaking landfills and chemicals sprayed on the land.

There are two new major areas of concern about human and wildlife exposure to hormone disruptors. The first is foetal sensitivity and vulnerability to exposure to chemicals and how this can lead to disease in later life. An example of this is male foetuses in-utero being exposed to feminising hormone disruptors during development via pesticides and plastics, leading to decreased sperm counts and an increased risk in testicular cancer in later life. The other major concern is that it is not just a few hormone disruptors to which we are all exposed, but many hundreds, possibly thousands. Each exposure alone may do no harm or only small harm to our health, but the multiple exposures together, which is what happens in reality, could be much more harmful.

Concern about the effects of chemicals in humans, such as the decline in sperm counts, and the increases in certain diseases eg some cancers, should lead to a more precautionary regulation of chemicals.

Without the work of CHEM Trust, knowledge of the potential role of chemicals in adverse effects on wildlife and human health will not be widely appreciated. It will remain only with a few scientists working at the cutting edge of research. This will condemn generations of children to continued exposure to man-made chemicals in the womb, several of which may pose a threat to their future ability to reproduce or reach their full potential.

Without our work, the chemical threat to biodiversity and the early warning signals provided by wildlife, will go unnoticed.

And without CHEM Trust the public will remain unaware that even in what should be pristine habitats, animals are contaminated and showing abnormalities and that worrying chemicals are in so many consumer products.

CHEM Trust's Vision is a world where humans and wildlife co-exist with a sustainable chemical industry and where chemicals play no part in causing impaired reproduction, deformities, disease, or deficits in neurological function.

CHEM Trust's Mission Statement is to prevent man-made chemicals from causing long term damage to wildlife or humans by ensuring that chemicals which cause such harm are substituted with safer alternatives.

CHEM Trust is uniquely placed in the UK and fills an important niche vacated by WWF, Greenpeace, and Friends of the Earth back in 2007. We continue to build on their work and further develop chemicals and health policy leading to improved human health and that of wildlife and the wider environment.

CHEM Trust development and transition:

Elizabeth Salter Green was Director and Gwynne Lyons Policy Director of CHEM Trust for 7 years. During that time the organisation developed and matured into the key chemicals and health NGO in the UK to whom all sectors turned to for advice, including the media, parliamentarians, industry, scientists, the medical profession and chemicals policy experts. In 2013 we were joined by an Associate, Dr Ninja Reineke, based in Germany and in 2014 by Dr Michael Warhurst. Michael is now the Executive Director as Elizabeth and Gwynne now both work part time. CHEM Trust now has an intern, and hopes to employ a campaigner in the future.

<http://www.chemtrust.org.uk/directors/>

CHEM Trust is one of the leading voices on chemicals and health issues in the UK, EU and globally.

CHEM Trust Further Information

Keep in touch with CHEM Trust's work through our blog at www.chemtrust.org.uk. All our reports can also be downloaded from this site, here is a small selection:

- ***Fracking Pollution: How Toxic Chemicals from Fracking Could Affect Wildlife and People in the UK and EU***, Philip Lightowlers (2015)
- ***Medicines in the Environment: A Growing Threat to Wildlife and Drinking Water***, Gwynne Lyons, (2014)
- ***Persistent organic pollutants and indicators of otter health: Other factors at play?*** Dr Eleanor Kean, Dr Elizabeth Chadwick & Gwynne Lyons (2013)
- ***Frogs at risk and possible implications for humans? Why EU chemicals legislation needs updating to address chemicals that damage the immune system***, Prof S Jobling, Dr A Baines & Dr T Garner (2013)
- ***A review of the science linking chemical exposures to obesity and diabetes***, Prof Miquel Porta & Prof Duk-Hee Lee (2012)
- ***Concerns about bisphenol A and recommendations for action***, Gwynne Lyons (2010)
- ***A review of the role pesticides play in some cancers: Children, farmers and pesticide users at risk?*** Prof Andy Watterson & Gwynne Lyons (2010)
- ***Why Mollusc Toxicity Tests for Endocrine Disruptors and Other Chemicals Are Needed***, Gwynne Lyons (2009)
- ***Male Reproductive Health Disorders and the Potential Role of Exposure to Environmental Chemicals***, Prof Richard Sharpe (2009)
- ***Effects of Pollutants on the Reproductive Health of Male Vertebrate Wildlife – Males Under Threat***, Gwynne Lyons (2008)
- ***Breast Cancer and exposure to hormonally active chemicals: An appraisal of the scientific evidence***, Prof Andreas Kortenkamp (2008)
- ***Chemicals Compromising Our Children: Neurological Impairment in Children***, Gwynne Lyons (2007)

Some documents are available in Russian, Polish, Czech, Italian, Spanish, French, German and Slovenian.

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