

Committee briefing REACH

– the view of an NGO

Why future generations of humans, wildlife and the chemical industry need new chemicals legislation (REACH)

Summary

- Jill Evans, MEP; Alun Michael, MP; John Griffiths AM, and Mick Bates AM, have all been tested as part of WWF's Biomonitoring Survey. They were all contaminated with a cocktail of man-made chemicals.
- Up to 300 man-made chemicals have been found in the bodies of humans. Babies are now born with man-made chemicals in their bodies – passed on from their mother. Some of these chemicals have been shown to adversely affect the development of our children.
- EU commission stated "99% of chemicals on the market by volume are inadequately regulated"
- Many of the man-made chemicals detected in WWF's biomonitoring surveys can be found in everyday consumer products. WWF believes that the development of safer alternatives for use in such products will create a new market that will help secure jobs, whilst ensuring that chemicals that build up in humans and wildlife are eliminated. i.e. REACH can ensure a high standard of protection of human health and the environment, whilst simultaneously encouraging industry innovation towards safer and greener products.
- REACH presents a once in a lifetime opportunity to phase out hazardous chemicals in favour of safer alternatives. If REACH is implemented positively it could make an important contribution to Sustainable Development.

Introduction

WWF is uniquely well placed to provide expert opinion and analysis on the global problem of inadequate chemicals legislation. For over 20 years WWF has led the way in cutting edge research on chemicals and was one of the first organisations to publish evidence of the pervasive and global problem of chemical contamination. WWF Senior Scientist Dr Theo Colborn pioneered much early work on

endocrine disrupting chemicals and published the now famous book, *Our Stolen Future*, in 1995.

Man-made industrial and agricultural chemicals have contaminated every corner of the globe. Some of these chemicals can persist in the environment for decades and accumulate in living things. As a consequence, humans and wildlife from around the world have been exposed. There is now unequivocal evidence that chemicals have already caused serious damage to the health of wildlife. Polar bears in the Arctic, panthers in Florida, otters in North America, peregrine falcons in the UK, dolphins in the Mediterranean and seals in the North East Atlantic have experienced reproductive problems, immune impacts, die offs and population crashes linked to chemical exposure. There are many more examples in the scientific literature.

Moreover, there is ever increasing evidence to suggest that certain hazardous man-made chemicals may be responsible for rising rates in certain human cancers, birth defects, genital deformities, reproductive problems and effects on children's brain development.

These are worrying global trends and WWF is looking for mechanisms which deal with these problems. The European Commission's proposed REACH legislation is one such mechanism.

Biomonitoring

The current situation of world wide contamination with man-made chemicals has been likened to an ongoing, unregulated global experiment. Humans and wildlife are exposed to an innumerable number of chemicals in their lifetimes. How does this cocktail affect humans and wildlife? How does it affect their offspring? There are currently no clear answers to this very worrying question.

In WWF's view, a necessary first step to address the issue of exposure to a cocktail of chemicals is to establish the degree of contamination – this is why WWF-UK's Chemicals and Health Campaign undertook a programme of "biomonitoring" where blood samples from volunteers are analysed for the presence of a wide range of man-made chemicals. While contamination alone cannot provide answers to the above questions regarding long term impacts, it does indicate where precautionary action can be taken to reduce exposure. Furthermore, WWF believes that our biomonitoring programme helps strengthen our arguments for where REACH needs to be made more robust. Inadequate chemicals regulation and lack of basic safety information about commonly used chemicals has led to widespread contamination of humans and wildlife. This is why reform of existing chemicals regulations (in the form of REACH) is so important.

The biomonitoring programme has included individual members of the public, MEPs, ministers, three generations of UK families and most recently umbilical cord blood samples. Blood samples are analysed for several classes of synthetic chemicals including brominated flame retardants, phthalates, PCBs, perfluorinated compounds, bisphenol-A, synthetic musks and organochlorine pesticides (including DDT).

Every person we have tested is contaminated. Further, children as young as nine are contaminated and sometimes at levels higher than their parents and grandparents generation. The chemical industry cannot think this bodes well for their future viability, let alone that of humans and wildlife.

It has been a very limited programme – ‘to test the water’ but has served to prompt governments and industry to do more. We now have an indication of how widespread contamination is and how the public feel about this. It has created an unprecedented response from the public across Europe who want to be confident that chemicals in everyday products in their homes do not have unwanted hazardous properties.

Biomonitoring has not been without its critics. WWF is regularly reminded by the chemical industry that contamination does not correlate with effect. However, our biomonitoring has shown that people are exposed to a complex mixture of chemicals and there is very limited information on the possible long-term effects of such mixtures. Most toxicological data is generated from tests on chemicals singly and in isolation. There is also increasing evidence that endocrine (hormone) disrupting chemicals can interact with hormone systems at much lower levels than ever previously considered. Additionally, research has illustrated that the unborn child is exquisitely sensitive to exogenous influence but is exposed in utero to a cocktail of foreign chemicals during crucial developmental stages. Man-made chemicals have also been associated with epidemiological trends in Europe such as declining sperm counts, increased birth defects and increased incidence of certain cancers (such as breast, testicular and prostate).

It is for reasons such as these that WWF is advocating a precautionary approach and why we support a strengthened REACH which deals with persistent, bioaccumulative and endocrine disrupting chemicals.

155 women and men, aged from 22 to 80 years were tested as part of WWF’s Biomonitoring Survey in 2003. 13 of those were tested in Cardiff. The department of Environmental Sciences at Lancaster University carried out the blood analyses and searched for the presence and levels of 77 chemicals. The table below shows that all the volunteers in Wales were contaminated above the national median in all groups tested except for PBDEs.

Chemicals	Min for volunteers in Wales ng/g lipid	Max for volunteers in Wales ng/g lipid	Median for national results in our survey ng/g lipid
Total PCB level	214	441	170
Total PBDE level	4	21	5.6
Total OCP level	161	2654	130
Total DDT level	132	2576	100
Total HCH level	15	44	15

Of those tested in Cardiff Jill Evans, MEP for Plaid Cymru had the highest total number of chemicals found in her blood; John Griffiths Deputy Health Minister had the highest levels of flame retardants used to prevent fire in everyday products such as cars and TVs. Mick Bates', Spokesperson on the Environment for the Liberal Democrats, blood sample showed the highest levels of DDT – an insecticide used in agriculture until it was banned in the 1970s.

Significantly, women were found to have lower levels of certain PCBs (industrial chemicals used in electrical equipment, but banned in the 1970) than men and the levels appear to reduce in relation to the number of children they carried and breast-fed.

Sylvia Davies, who participated in the blood survey in Cardiff was shocked to learn that she may have 'off-loaded' her chemicals onto her newly born baby and commented that despite following an organic diet, she was still contaminated by 19 chemicals.

WI member Enid Jones, from Llanfair Caereinion, Powys, is the mother of a family that had their blood analysed for man-made chemicals as part of WWF's family biomonitoring study in 2004. She discovered that she and her youngest son, aged nine are, contaminated by many man-made chemicals. Some of these have already been banned – such as DDT and PCBs.

WI members from across Wales have felt so strongly about their exposure to man-made chemicals that 5 representatives from Wales travelled to Brussels to lobby their MEPs.

Most consumers in Wales do not know that they are buying these chemicals when they do their weekly shop, and they are even less likely to be aware of the potential health impacts of them. REACH provides a once in a generation opportunity to ensure that the health of both people and wildlife, and their future generations, are better protected from hazardous man-made chemicals.

Why REACH is necessary – the problems with the current EU system

The European Commission's proposed REACH legislation, if implemented positively, can be an important contribution to sustainable development. REACH can ensure a high standard of protection of human health and the environment, whilst simultaneously encouraging industry innovation towards safer and greener products. It presents a once in a lifetime opportunity to make a real difference to human health, the fate of wildlife and for ecosystems as a whole.

WWF therefore supports the basic framework of the REACH proposal but considers a number of important improvements are needed, as our view is that REACH is under great pressure to be weakened by industry lobbying.

Industrial chemicals are essential to modern society – from monomers that make plastics, pigments for paint and dyes to precursors for pharmaceutical, the chemical industry provides lifestyle benefits, significant employment and generates great revenue. However, many chemicals have hazardous

properties so a regulatory system has been developed to try and identify and manage those risks. Until the current REACH proposals there had been no specific obligation on the chemical industry to actually find out the risks of their chemicals.

There are many problems with this current system in the EU including:

- more than 90% of chemicals on the market, the "existing" chemicals (pre-1981), do not need safety information before they are sold, and
- the production of "new" chemicals is penalised, as notification is necessary for new chemicals but not old ones.

REACH is however the first regulation in the world to both:

- end the artificial regulatory discrimination between new and existing chemicals (discrimination that has no scientific basis) and
- put the requirement of the generation of the data firmly in the hands of industry itself.

REACH will ask for data to be delivered on existing chemicals by around 2018 which is 37 years after the 1981 deadline marking the start of data requirements on new chemicals. Is 37 years really too short a period to phase in a requirement for all chemicals on the market?

Current regulatory systems have not obliged the chemical industry to provide safety data on the chemicals they have been selling for decades. There is an obligation on industry with regard to these chemicals to:

- package and label the chemicals
- protect workers
- protect consumers and downstream users

In spite of these obligations a large amount of evidence indicates that as a whole the chemical industry has not investigated the safety of their chemicals. For example, a study by Allanou et al (1999) concluded that around 85% of EU high production volume chemicals did not have enough information to make even a rudimentary risk assessment. Without such safety information it is not possible to classify and label chemicals, to implement the proper health and safety measures, to identify the chemicals with the worst properties, or establish which chemicals are of highest priority.

Concerning the lack of safety data, the European Commission has stated:

"99% of chemicals on the market by volume are inadequately regulated"

"As a result of the systematic testing of new substances about 70% have been identified as being dangerous. It is likely that a similar proportion of existing chemicals should be

classified as dangerous, once proper safety information is available".

Under the EU current chemicals system there are two problems. Firstly it is the responsibility of the regulator to gather and analyse information on the problem chemicals and to justify why they should be controlled, rather than industry's responsibility to demonstrate the safety of their chemicals. Assembling this data is difficult for regulators and many risks to consumers do not become clear until late in the day.

Secondly, the ineffective chemicals system now existing has led to slow action on problem chemicals and to the continued use of thousands of other chemicals where the information is insufficient on safety aspects.

The Benefits of REACH

The benefits of the Commission's REACH proposal far outweigh the costs.

REACH is intended to amend the failures of the last 70 years of chemicals mis-management. If implemented in a positive way, REACH will lead to great health and environmental benefits, as well as fulfilling the reasonable demand that the use of man-made chemicals should be controlled by a system based on information not ignorance.

REACH will improve health of both consumers and workers and lead to a less contaminated environment for the benefit of all wildlife/biodiversity. This will lead to cleaner food and drinking water and reduce scandals, costly cleanups and liability claims.

REACH will also help the industry by increasing knowledge, consumer confidence and opportunity for innovation leading to a more positive business environment

REACH will provide a predictive, transparent legal system enabling improved long-term industry planning.

Crucially in REACH the main responsibility for chemical safety is clearly placed on the chemical producer, not on public authorities or downstream users.

WWF does not want to put the chemical industry out of business. We know it is a very innovative and intelligent industry producing health benefits, lifestyle improvements and much employment. But the chemicals industry also needs to be sustainable. WWF supports a sustainable chemical industry that produces those benefits whilst minimising the possible negative side effects. WWF feels that a robust REACH, incorporating improvements, is one way to achieve this.

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www.wwf.org.uk/chemicals

www.panda.org/detox

Appendix

Improvements needed within REACH

1. REACH must ensure the replacement of a chemical of very high concern when there is a suitable alternative.

It is crucial to remove the ‘adequate control of the risk’ route for gaining authorisation. The inclusion of this phrase means that resources would be spent on justifying the continued use of a chemical of very high concern rather than prioritising the development of alternatives. The existence of a suitable alternative should be sufficient grounds to refuse the authorisation of such a chemical.

2. REACH must include EDCs in prior authorisation.

a) Given the growing concerns about EDCs and their links to human disease there is a need for REACH to find pragmatic solutions to identify and control this group of chemicals.

b) The current wording of the draft REACH text may restrict the authorities’ ability to take precautionary steps to control some chemicals of very high concern, including EDCs. EDCs will only be included in authorisation if they can be ‘identified as causing serious and irreversible effects to humans and or the environment’ equivalent to the other substances already included in authorisation. This text was added prior to the release of the revised REACH text after the public consultation. WWF is calling for the original text to be used which requires prior authorisation to apply to additional substances giving ‘rise to a similar level of concern’. The current text is too onerous, stringent and presents too high a barrier for action, not allowing for a precautionary approach.

3. REACH must stimulate industry innovation and minimise costs by getting early identification of substances for authorisation.

WWF considers that chemicals which meet the criteria for ‘very high concern’ need to be identified and listed as soon as possible and in advance of going through the authorisation process. Annex XIII is where substances subject to authorisation will be listed. However, WWF is proposing an additional list to promote the early identification of all the substances that meet the criteria for ‘very high concern’. This would mean that Annex XIII would contain 2 lists; Annex XIII(a) would list candidate substances that are judged to meet the criteria for chemicals of ‘very high concern’, whilst Annex XIII(b) would list substances that have actually been selected for prior authorisation.

Advising industry as early as possible which chemicals will require authorisation will provide more certainty and increase market pressure to develop safer alternatives more quickly. But to emphasise, WWF sees Annex XIIIa as temporary holding bay, to provide a market mechanism while substances are queued into being actually brought under prior authorisation, but all such chemicals should eventually be brought into 13b and thus be subject to dates by which industry must make its case for ongoing use under authorisation.