



International Baby Food Action Network - IBFAN

Geneva Infant Feeding Association - GIFA



1998 RECIPIENT OF THE RIGHT LIVELIHOOD AWARD

## Written submission on the human rights implications of the widespread use of hazardous pesticides, in particular in relation to the right to food

Geneva Infant Feeding Association (IBFAN-GIFA)

[www.gifa.org](http://www.gifa.org)

December 2016

### About the International Baby Food Action Network (IBFAN)

**A world-wide network.** IBFAN is a 38-year old coalition of more than 273 not-for-profit non-governmental organizations in more than 168 developing and industrialised nations. The network works for better child health and nutrition through the protection, promotion and support of breastfeeding and the elimination of irresponsible marketing of breastmilk substitutes.

**Our commitment.** IBFAN is committed to the Global Strategy on Infant and Young Child Feeding (WHO, UNICEF, 2002) – and thus to assisting governments in implementation of the International Code of Marketing of Breastmilk Substitutes (International Code) and its relevant resolutions of the World Health Assembly (WHA) to the fullest extent, and to ensuring that corporations are held accountable for their International Code violations. In 1998, IBFAN received the alternative Nobel Prize, called the Right Livelihood Award, “for its committed and effective campaigning for the rights of mothers to choose to breastfeed their babies, in the full knowledge of the health benefits of breastmilk, and free from commercial pressure and misinformation with which companies promote breastmilk substitutes”.

**Breastfeeding, a matter of human rights.** The International Baby Food Action Network (IBFAN), welcomes the joint statement issued on 22 November 2016 by the UN Special Rapporteurs on the right to health, Dainius Pûras, and on the right to food, Hilal Elver, together with the Working Group on discrimination against women, and the Committee on the Rights of the Child (see the press release ‘[Breastfeeding a matter of human rights](#)’ and the full statement ‘[Joint statement in support of increased efforts to promote, support and protect breast-feeding](#)’). In this historic statement, the UN experts not only reaffirm that the protection, promotion and support of breastfeeding is a matter of human rights, but also significantly urge action on the marketing of formula milk, underscoring that « States should do more to support and protect breastfeeding and end inappropriate marketing of breast-milk substitutes. »

**Harmful impact of children's exposure to pesticides.** Article 24.2 (c) of the 1989 Convention on the Rights of the Child guarantees every child's right to the highest attainable standard of health, and States Parties should adopt appropriate measures to protect this right "taking into consideration the dangers and risks of environmental pollution". The strong terms 'dangers and risks' are fully justified by the evidence accumulated since 1989 on the harmful impact of environmental toxicants on child survival, healthy growth and development.

The rise in quantities of pesticides used over the past 50 years is indeed alarming. Infants and young children are among the most sensitive to pesticide exposures because of their early stages of development; their body organs and as well as their immune, reproductive and nervous systems are still maturing. Compared to adults, they consume higher amounts of food and water per unit of body weight, leading to greater and accumulated exposures. Absorption rates for chemicals and toxic elements are higher than in adults and excretion rates are lower due to immaturity of renal function.

In these vulnerable groups it is thus vitally important to address the harmful effects of both prenatal and postnatal exposures to pesticides. However, it is also necessary to assess the impact of preconception exposure to pesticides of future fathers as well as future mothers. This is a gap and weakness in both research and regulation (see question 7.)

For infants from 0 to 6 months, breastfeeding or formula feeding provides the only source of food and drink and thus exposure to pesticides can be significant. From 6-12 months complementary foods are introduced in increasing quantities while breastfeeding or formula feeding continues as the main source; young children from 12-36 months also may also ingest important amounts in baby foods and cereals.

**Postnatal pesticide exposures through infant and young child feeding.** Pesticides have been detected in breastmilk and the contrast between the traditional perception of breastmilk as 'pure' and the alarmist media reports of 'contaminated' breastmilk have proved an effective campaigning tool to ban or reduce the use of the most harmful pesticides. In the UK, pesticide levels in mother's milk were already falling in 1999 (see '[Endocrine Disrupting Pesticides](#)') while recent Australian research shows a 24-fold decrease in levels of pesticides detected in breastmilk (see '[Pesticides in human milk of Western Australian women and their influence on infant growth outcomes: A cross-sectional study](#)').

A formula-fed infant requires between 6-8 bottles during the first six months of life, ingesting between half a litre and one litre of formula milk as the baby grows; this is the sole source of food and drink at that age, bringing the added risk of ingestion of water contaminated by pesticides. The Right to Food includes the right to correct and impartial information on contamination of infant foods, free from commercial bias. In France the government agency ANSES issued a study in 2016 on total infant feeding practices, with the acronym EAT (Etude de l'alimentation totale infantile) which measured levels of toxic contaminants in formulas for babies aged between 0 and 12 months. They found at least ten substances of concern including pesticide levels of aldrine, dieldrin and lindane that may pose a risk to infant health, as well as residues of 278 pesticides in some of the products tested. The fourth volume of this report provides a detailed examination of these pesticides; this is an example of government action on the right to independent information (5) (see <https://www.anses.fr/fr/system/files/ERCA2010SA0317Ra-Tome2-Part4.pdf>).

Powdered infant and follow-up formulas need to be reconstituted with water and contamination of drinking (tap) water by run-off from the pesticides used in intensive agriculture is a major

problem. In Switzerland, a land famed for its pure mountain water, Swiss environmentalists estimate that more than 2100 tonnes of pesticides are sold every year. Conventional agriculture uses 7.6 kg of pesticides per hectare and per year in cultivated fields and vineyards. Out of the 340 active pesticides authorised for use in Switzerland, 140 are found in rivers and streams, killing wildlife and posing a threat to aquifers, as explained in the Pro Natura campaign '[Stop aux pesticides dans nos eaux!](#)'. Government action in Switzerland lags behind Germany which requires pesticide users to register again every 3 years to prove their awareness about risks of older or withdrawn products. This addresses the right to information on hazardous substances in food and water (5).

It is not a solution for parents to use bottled water to make up feeds of powdered formula or baby cereals. The [UK National Health Service](#) and other national and international authorities provide examples of the right to information on hazardous substances in food and water (5) «Bottled water is not recommended to make up infant formula feeds for your baby. This is because it's not usually sterile (free from bacteria) and may contain too much salt (sodium) or sulphate. »

Postnatal pesticide exposures of infants and young children are preoccupying but prenatal exposures are perhaps even more so: the developing fetus is extremely vulnerable to the toxic pesticides used in agriculture, horticulture, household and industrial products. These cross the placenta, which was hitherto considered an effective barrier.

**The mitigating effect of breastfeeding.** Despite adverse media reports of 'polluted breastmilk' it is important to emphasise that breastfeeding and breastmilk contribute to mitigating the effects of prenatal exposures. Breastmilk contains live and active cells which boost the maturation of the infant's immune system and provide anti-infective agents. The 2013 '[Benefit and risk assessment of breastmilk for infant health in Norway](#)' underscores its vital and long-term importance for the protection of children's health, during childhood and most probably also in later life : « In addition to nutrients, breastmilk contains a number of specialised components, including factors with anti-microbial and anti-inflammatory properties as well as constituents stimulating the maturation of the infant's immune system. » It concludes that « [b]enefits associated with breastmilk clearly outweigh the risk presented by current levels of contaminants in breastmilk in Norway. » (5)

**Gendered impact of pesticide exposure.** Such evidence is vital to provide more balanced media reporting on studies which document levels of pesticides in utero and in breastmilk. Often the sole focus of these reports is on women, thus fuelling ancestral attitudes to women's bodies as 'unclean' and 'polluting'. The UN Special Rapporteurs' Joint Statement quoted above notes cogently : « « In addition, women are exposed to harmful gender stereotypes and taboos regarding natural and biological functions such as breastfeeding [... ]», adding that this can lead to discrimination at the workplace and stigmatization in the public space.

It is certain that these reports have spurred action to restrict and ban pesticides, but a focus on contamination of male bodies by pesticides could have an even greater impact among policy- and decision-makers. The male body and its reproductive functions are the real subject of taboo. Certain pesticides contain a class of chemicals which have a harmful effect not only on future fathers, but also on their offspring and particularly on male children.

**The danger of Endocrine Disrupting Chemicals.** Preconception pesticide exposures are an emerging public health concern, particularly regarding pesticides with hormone disrupting properties, that is the class of chemicals known as Endocrine Disrupting Chemicals (EDCs).

This class of chemicals falls under gaps and weaknesses in international and regulatory systems (7).

The endocrine glands secrete the hormones which regulate the development of our bodies' reproductive and neurological systems, as well as the functions of essential organs. EDCs are substances that may mimic or interfere with the function of hormones in the body. These 'hormone impostors' may turn on, shut off, or modify signals that hormones carry, which may affect the normal functions of tissues and organs. Many of these substances have been linked with developmental, reproductive, neural, immune, and other problems in wildlife and laboratory animals. Some research suggests that these substances are also adversely affecting human health in similar ways, resulting in reduced fertility and increased incidences or progression of some diseases, including obesity, diabetes, endometriosis, and some cancers, as explained in the '[Endocrine Disruptors factsheet](#)' from the US National Institute of Environmental Health Science.

Males are not specifically included in the category of the categories of particularly vulnerable populations in question 3. Yet men are also exposed to hazardous pesticides, especially in occupations such as agriculture and horticulture, and many of these pesticides contain EDCs. Because EDCs impersonate the body's hormones they are active, just like hormones, even at minute doses and in combined exposures. Parental exposures may affect fertility or the development of the foetus ; the critical period for maternal exposure to pesticides is from the month before conception and the first trimester of pregnancy, whereas the critical period for paternal exposure is during the three months prior to conception. In 2014 the Nordic Council of Ministers examined these risks, an example of the right to information (5), in their report '[The cost of inaction: a socioeconomic analysis of costs linked to effects of endocrine disrupting substances on male reproductive health](#)'.

Regarding this right to information, a 2009 listing of pesticides with endocrine disrupting properties in the UK by the NGO WWF can be found at <http://www.pan-uk.org/pestnews/Actives/endocrin.htm>. A 2011 estimation of the number of such pesticides, about 105, and evidence of their negative health impacts can be found at '[Effects of Endocrine Disruptor Pesticides: A Review](#)'. This important study also addresses the problem of pesticide by-products, « which can exhibit greater harmful effects than their parent compounds » and the « combined actions of pesticides [...] because mixtures of these substances may cause higher toxic effects. »

Pesticides with endocrine disrupting properties may block androgen receptors and mimic the female hormone estrogen ; both can lead to reduced fertility in men, leading to decrease in semen quality and increased time to pregnancy, as explained in '[The impact of pesticides on male fertility](#)'. In view of the scarcity of studies, the authors call for further research. In rodents, such pesticides lead to feminization of male fetuses. Even these rodent studies are of sufficient concern to merit increased sensitization of men, as future fathers, to the risk of pesticide exposures and to motivate them to campaign more actively for restrictions to ban these pesticides.

Examples of government action, including gaps and weaknesses, are given below.

### Question 1: Action taken by States, regional groupings and international organizations

- **Regional groupings :**

**The European Union** has used measurements of levels of hazardous chemicals, including pesticides, **in all human bodies** to strengthen legislation under the EU REACH Directive on Registration, Evaluation, Authorization and restriction of Chemicals. Blood and urine samples from both males and females, as well as breastmilk, were examined. Such powerful argumentation continues to be necessary to counter the powerful lobby of the mighty chemicals industry. Under the EU REACH Directive the toxic weed killer atrazine, which acts as an endocrine disruptor, was banned. However, in the USA the campaign to convince the Environmental Protection Agency ban atrazine has been subject to disinformation spread by the manufacturer (see '[Ban the use of toxic atrazine](#)').

A further example of these challenges is provided by the on-going EU is debate about the criteria for classification of different chemicals as EDCs, and their levels of toxicity. The fact that EDCs are toxic to the reproductive health of both males and females, with male infants especially affected, is well documented but the chemicals industry is finding every way to block progress in this debate. The wording of the revised EU proposal for burden of proof has been changed from 'negligible exposure' to 'negligible risk', which is much harder to prove. The arguments are explained in the letter sent by campaigners to Environment, Health and Agriculture Ministers of November 14 2016 (see [http://www.edc-free-europe.org/wp-content/uploads/2012/11/Letter-to-EU-ministries-on-revised-EDC-criteria\\_FINAL.pdf](http://www.edc-free-europe.org/wp-content/uploads/2012/11/Letter-to-EU-ministries-on-revised-EDC-criteria_FINAL.pdf))

- **International Organizations :**

The International Labour Office has adopted Conventions to protect agricultural workers, such as ILO Convention 184 on Safety and Health in Agriculture (see [Safety and Health in Agriculture Convention](#)). Efforts must be made by Governments to implement and monitor this key Convention, especially young workers and hazardous work (article 16) and women agricultural workers (article 18).

### Question 2: Exploration of alternative methods of farming and gardening

In two of the countries mentioned above, France and Switzerland, agroecological and organic farming methods are replacing conventional intensive agriculture, and proving that weed, fungi and pest control can be achieved by alternative methods that are cost-effective. The market for organic products is also expanding rapidly, as are the organic gardening practices of households.

### Questions 5 and 7: Right to information and Gaps and weaknesses in international and national regulatory systems

**Further research is required:** The ANSES report (see <https://www.anses.fr/fr/system/files/ERCA2010SA0317Ra.pdf>) referred to above notes the lack of information and recommends improved analytical procedures to detect hazardous residues in infant formulas and baby foods. Research on reduced male fertility and increased reproductive disorders linked to pesticide exposures also needs to be intensified and causal factors explored.

**Increased access to industry information:** Under the right to information on hazardous substances, governments should require full disclosure by manufacturers of pesticide residues

in all infant and young child feeding products. Assessment of levels should be independent and impartial and results should not be used by manufacturers to use unsubstantiated claims and promotional misinformation to create new markets and expand existing markets for their products.

In the subtitle of their [joint statement](#) in support of increased efforts to promote, support and protect breast-feeding, the UN Special Rapporteurs and the CRC Committee urge to governments to “States should do more to support and protect breastfeeding, and end inappropriate promotion of breast-milk substitutes” in order to protect the right to food and to information on hazardous substances.

This subtitle marks a major step forward in addressing the problem of marketing of formula and baby foods – breastmilk substitutes. The major food and pharmaceutical companies are closely linked to the agro-chemicals business and pursue similar marketing strategies. One of these is to maximise the risks of breastfeeding and minimise the risks of feeding with breastmilk substitutes. It is critical to increase efforts by States to implement the International Code of Marketing of Breastmilk Substitutes into national legislation which can be enforced and monitored.

### **Question 9: Court Decisions**

In November 2016, the European Court of Justice heard 2 cases which address the right of access to environmental documents. The pesticides documents ruling at Court of Justice of the European Union confirms « the concept of ‘information on emissions into the environment’ covers, inter alia, information concerning the nature and effects of the release of a pesticide into air, water or soil, or onto plants. » (see <http://g8fip1kplyr33r3krz5b97d1.wpengine.netdna-cdn.com/wp-content/uploads/2016/11/pesticides-documents-ruling.pdf>)

- For further information: see IBFAN webpage '[Chemical Residues in Every Body](#)'