

NCD Alliance Response: Mandate of the Special Rapporteur on the right to food - Questionnaire for non-governmental stakeholders to inform report to the 34th Session of the Human Rights Council

NCD Alliance is grateful for the opportunity to respond to this questionnaire. Non-communicable diseases (NCDs), including cancer, cardiovascular disease, chronic respiratory conditions, diabetes, and mental and neurological disorders account for 68% of global mortality. Leading risk factors include unhealthy diets, tobacco use, physical inactivity, harmful use of alcohol, and air pollution. There is also growing evidence to suggest that harmful exposure to chemicals, increases risk of cancer and neurological disorders, as well as diabetes. Harmful exposure to pesticides, which are by nature chemicals, intersects with multiple NCD-related priorities, not least on account of the pertinence of this issue to accessibility of healthy, plant-rich diets for a global population which is not only growing but also urbanising. While use of pesticides already increases risk of developing NCDs, together with wider health concernsⁱ, growing attention to the means to produce food for larger populations, which are greater distances from rural agricultural sites employing traditional farming methods, and with reducing rural land areas, will inevitably heighten calls for use of pesticides. In light of current evidence and furthermore in anticipation of these debates, it is essential that consideration of the careful regulation of pesticides, and of alternative agricultural methods to produce food in high volumes, are well researched, understood and promoted.

1. The use of pesticides has had detrimental effects not only on the environment but also on human health, both from direct and indirect exposure. What are the successful and unsuccessful measures taken by Governments and businesses to prohibit, ban, restrict and phase out pesticides that are harmful to human health?

At global level, the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) released Guidelines on Highly Hazardous Pesticides (HHPs) in 2016ⁱⁱ. While progress in the areas noted in the guidelines vary significantly across countries, the guidelines provide extensive information on assessment of need and risk; mitigation options; planning for action plans and multisectoral engagement; and registration, enforcement, training and surveillance in order to prevent harm to health.

With regard to mitigation of adverse health effects of pesticides by businesses, German DIY store Toom Baumarkt removed products containing glyphosphate from its shelves in September 2015ⁱⁱⁱ. The Germany-based supermarket ALDI banned eight pesticides from its ALDI Süd stores in Germany on 1st January 2016, and will ban them in USA stores from 1st January 2017. These pesticides, namely thiamethoxam, chlorpyrifos, clothianidin, cypermethrin, deltamethrin, fipronil, imidacloprid and sulfoxaflor, were targeted on account of their toxicity to bees, but at least three of these (chlorpyrifos, cypermethrin, and imidacloprid) have also been suggested to have carcinogenic or neurotoxic effects. Crystalline quartz silica, found in the imidacloprid product Merit 0.5 G, is 'carcinogenic to humans'^{iv,v} according to the International Agency for Cancer, and is 'known to be a human carcinogen'^{vi} by the US National Toxicology Program (NTP).

2. Do you believe that is possible to shift from industrial agriculture systems to agro-ecological methods?

We are convinced that with innovative techniques being developed internationally, it is possible to eliminate unsustainable industrial agricultural techniques. Increasing global populations and urbanisation trends are frequently cited as validation of continued use of industrial techniques, and yet business initiatives including 'Growing Underground' in London, and 'AeroFarms' in the USA not only without use of pesticides, but in vertical multistorey warehouses taking up minimal ground space, or even underground. The potential to grow food in such vast quantities even in cities also minimises adverse environmental impacts of transporting food over long distances. Indeed, agro-ecological transitions may even be a necessary solution to herbicide resistant strains of certain weeds or pests. A report by the International Panel of Experts on Sustainable Food Systems entitled 'From Uniformity to Diversity' goes into significant detail on the need and proposed solutions to shift from industrial agriculture to diversified agroecological systems.ⁱ

An example of effective agro-ecological methods is cited in this report. Pearl millet head miner emerged as a major pest in Mali, Burkina Faso, and Niger in the 1970s. With widespread pesticide control not an economic option, and plant breeding unsuccessful over the years, the parasitic wasp (*Habrobracon hebetor*) was eventually discovered in Senegal as a natural biological enemy. Following a long period of testing, wasp-rearing and release was begun in 2006. Parasitoid kit bags were given to farmers, each containing millet grain, 25 pest

larvae and two pairs of *H. hebetor*. Farmer field schools* have been run for 700 farmers to increase their engagement and understanding of the approach, and in 2009 a total of 395 villages had become part of the programme, with 700,000 farmers benefiting from the presence of the parasitoid. Yields have been improved by 40%, with kill rates of 72% recorded for the pest larvae.

**this case may also be relevant for question 8*

3. Some particularly exposed or vulnerable groups such as children, pregnant women, farmers, farm workers, indigenous peoples and migrant workers, are at greater risk to the effects of pesticides due to higher exposure or increased sensitivity. Please explain the efforts undertaken by Governments and businesses to prevent and mitigate detrimental impacts of pesticides on the health of these vulnerable groups.

Under the Food Quality Protection Act (FQPA), The US Environmental Protection Agency (EPA) ensures that all pesticides used on food in the United States meet FQPA's safety standards. FQPA requires an explicit determination that a pesticide's use on food is safe for children and includes an additional safety factor (up to tenfold) to account for uncertainty in data relative to children.

The US EPA Agricultural Worker Protection Standard (WPS) is aimed at reducing the risk of pesticide poisoning and injury among agricultural workers and pesticide handlers. The WPS offers occupational protections to over 2 million agricultural workers (people involved in the production of agricultural plants) and pesticide handlers (people who mix, load, or apply crop pesticides) who work at over 600,000 agricultural establishments (farms, forests, nurseries and greenhouses).^{vii} Furthermore, the US EPA worker safety program cooperative agreements fund projects to educate pesticide applicators, handlers, and farmworkers on how to work safely with, and around, pesticides.^{viii} These projects include one directed specifically to migrant and seasonal workers.^{ix}

4. Is there any study that has been conducted by your organization using disaggregated data to differentiate and detect impacts on above mentioned vulnerable groups?

No.

5. States have an obligation and businesses a responsibility to implement the right to information on hazardous substances. How are Governments and businesses ensuring that pesticide users and consumers are informed of the hazards and risks of pesticides used in food production?

On 23 November 2016, the EU Courts of Justice announced that information about pesticides, their ingredients and their effects on the environment can no longer be hidden behind commercial confidentiality clauses and instead will have to be made available to those requesting it.^x

While organic produce is often clearly marked as such, governments could consider labelling systems which inform consumers of the types of pesticides their food has been treated with. A recent controversy in the USA has emerged over Quaker Oats, which claim to be '100% natural' but which have been found to contain traces of glyphosphate.

6. Please provide your views on good practices by Governments and business to assess, monitor, prevent and mitigate the risks of exposure to hazardous pesticides, and what further steps could be taken. Answers may focus on systems present at the national, regional and/or the global level.

The US Food and Drug Administration (FDA) launched a 'special assignment' in early 2016 to analyse certain foods for residues of glyphosate. However, this work was later put on hold, with cited reasons including difficulties with establishing a standard methodology to use across the agency's multiple U.S. laboratories, and a need for more sensitive instruments.^{xi} FDA was unable to say when the analysis would resume. In this case, it would still seem to be of value to continue the work in laboratories able to make the required measurements, albeit slowing the rate of progress to that originally planned, but being vastly preferable to generating no evidence.

Regular monitoring to ensure pesticide residue levels are within specified limits is carried out with varying degrees of frequency. (For example, annually by the European Food Standards Agency^{xii} and quarterly by the UK Expert Committee on Pesticide Residues in Food (PRiF).^{xiii} This should always be made publicly available to be viewed by consumers when desired. However, the value of such monitoring is vastly reduced if there is insufficiently stringent approval processes for use of pesticides in the first instance.

7. Gaps and weaknesses in international and national regulatory systems allow the use of pesticides that are unsafe, even when used legally and per instruction, on the market. Please provide examples of regulatory gaps (e.g. flaws in the registration process of pesticide products, lack of rigorous testing and safety standards, and lack of full disclosure to the public) and good practices in building effective protection frameworks governing the production and use of pesticides.

In November 2016, in Hawaii, the U.S. Ninth Circuit Court of Appeals concluded that Hawaii counties don't have the right to regulate agriculture, including pesticides or genetically modified crops. This ruling was made on the basis that pesticide law is comprehensive, and that the Legislature intended it to be 'uniform and exclusive of additional, local rules.'

In summer 2016, the European Food Safety Authority published a protocol for implementing a major exemption from the Pesticides Regulation 1107/2009 which is only meant to apply where there is 'serious danger to plant health'. The exemption would apply to herbicides (weed killers) that are still on the EU market but about to be banned based on the 2009 pesticide Regulation which includes 'cut-off' provisions for classified carcinogenic, reprotoxic or endocrine disruptive pesticides. However, while EFSA describes this exemption procedure as 'concerning the necessity of the application of herbicide active substances to control a serious danger to plant health' and 'to confirm the lack of other available means capable of controlling an identified serious danger to plant health.' Pesticides Action Network Europe (PAN) responded that the entire premise of the exemption was fraudulent: 'This protocol is a scandal. Weeds will in the worst case cause a reduction of the yield of a crop and not be a serious danger to plant health. Allowing herbicides to be part of the Article 4.7-derogation is a grave misuse of the rules.'

In California, in 2012, an international treaty had banned the popular pesticide methyl bromide on account of its effects to deplete the ozone layer. Dow, the manufacturer of an alternative but highly regulated pesticide 1,3-Dichloropropene, argued that in order to protect agricultural productivity, it was advisable for the California Department of Pesticide Regulation to raise the limits of 1,3-Dichloropropene, which the state believed to be carcinogenic. One school later registered 1,3-D levels that were 800 times what the state said was acceptable on one day.^{xiv}

In Louisiana in 2002, the emergency exemption program of (Federal Insecticide, Fungicide, and Rodenticide Act - FIFRA - Section 18), allowed EPA to permit pesticides not registered for a specific purpose to be used under 'emergency circumstances,' such as risk to human health or 'significant economic [crop] loss.' According to one source, from March 1998 to March 2002, EPA and states granted over 2000 exemptions, but denied only 72.^{xv}

General weaknesses in USFDA legislation noted by Sass and Wu^{xvi} in 2011 focus on the type and quality of evidence required for registering a pesticide with the US environmental agency before they can be sold. The required toxicity studies do not include many important endpoints such as immune system toxicity, endocrine system disruptions, learning deficits, or chronic illnesses, despite the fact that all of these endpoints have been linked to pesticide exposure. Furthermore, the majority of pesticide products are granted 'conditional registrations' without all required information. EPA's own analysis confirmed findings that 69%, or 11,000, of all 16,000 pesticide registrations are conditional. Finally, harm also occurs because pesticides are reviewed only every fifteen years, leaving long lag times between generation of scientific evidence and regulatory action.

8. Please provide examples of successful efforts (supported and incentivized by Governments) to reduce the use of pesticides in agricultural food production, including ecological methods of pest control and agro-ecology.

The US Environmental Quality Incentives Program (EQIP) is a voluntary program which provides financial and technical assistance to agricultural producers to plan and implement conservation practices. The EQIP Organic Initiative Provides financial assistance to help implement conservation practices for organic producers and those

transitioning to organic to address natural resource concerns. It also helps growers meet requirements related to National Organic Program (NOP) requirements. EQIP Organic Initiative contracts are limited to \$20,000 per fiscal year and \$80,000 during any 6-year period for persons or legal entities.^{xvii}

Under its current Organic Action Plan, Denmark seeks to double the organically cultivated area by 2020 from the 2007 level. In 2015 the government allocated almost €5.4million for investments in organic agricultural production, and €3 million to the Innovation Fund Denmark for investments in organic research.^{xviii}

In the UK, farmers can get financial help for converting to organic farming through the Countryside Stewardship scheme^{xix} or other means^{xx}. Food can only be sold as 'organic' if it has been inspected and certified by one of the UK's nine organic control bodies.

9. Please share any information regarding court decisions or on-going litigation in relation to the detrimental effects of pesticides, in particular in relation to the right to food.

The US EPA is urging a federal court to reject a lawsuit that alleges the Agency has failed to turn over documents related to its October 2014 decision to register Dow AgroSciences' herbicide, Enlist Duo, which contains 2,4-D choline + glyphosate.^{xxi,xxii}

Personal injury law firms around the United States are representing plaintiffs Monsanto that claim the company's Roundup herbicide has caused cancer in farm workers and others exposed to the chemical, and accusing Monsanto of long knowing that the main ingredient in Roundup, glyphosate, was hazardous to human health.^{xxiii,xxiv}

10. Please provide any additional information you believe would be useful to understand challenges confronting Governments and businesses in their efforts to prevent and mitigate adverse impact of pesticides on human health, right to food and the environment.

It could be of value to collate centralised records of industry funded research on the issue of health impacts of pesticides in order to more easily scrutinise the methods used and critically evaluate the conclusions asserted.

ⁱ http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf (see page 29 and 40 for nutrition and disease risk evidence relating to pesticides)

ⁱⁱ http://apps.who.int/iris/bitstream/10665/205561/1/9789241510417_eng.pdf

ⁱⁱⁱ <http://www.rewe-group.com/en/newsroom/pressemitteilungen/1422#>

^{iv} <http://monographs.iarc.fr/ENG/Classification/ClassificationsAlphaOrder.pdf>

^v <http://monographs.iarc.fr/ENG/Classification/>

^{vi} <https://ntp.niehs.nih.gov/ntp/roc/content/profiles/silica.pdf>

^{vii} <https://www.epa.gov/pesticide-worker-safety/agricultural-worker-protection-standard-wps>

^{viii} <https://www.epa.gov/pesticide-worker-safety/epa-pesticide-safety-funding-opportunities>

^{ix} <http://afop.org/health-safety/hs-training-program/>

^x <http://curia.europa.eu/jcms/upload/docs/application/pdf/2016-11/cp160128en.pdf>

^{xi} http://www.huffingtonpost.com/carey-gillam/fda-suspends-glyphosate-r_b_12913458.html

^{xii} <http://www.ecpa.eu/news/efsa-annual-pesticide-residues-report-confirms-safety-europe%E2%80%99s-food>

^{xiii} <https://www.gov.uk/government/collections/pesticide-residues-in-food-results-of-monitoring-programme>

^{xv} <https://www.theguardian.com/us-news/2014/nov/10/sp-california-strawberry-industry-pesticides>

^{xv} <http://www.beyondpesticides.org/assets/media/documents/documents/EmergencyPesticideLoophole.pdf>

^{xvi} <http://www.psr.org/environment-and-health/environmental-health-policy-institute/responses/us-pesticide-regulation.html?referrer=https://www.google.co.uk/>

^{xvii} <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/>

^{xviii} http://en.mfvm.dk/fileadmin/user_upload/FVM.dk/Dokumenter/Landbrug/Indsatser/Oekologi/7348_FVM_OekologiplanDanmark_A5_PIXI_English_Web.pdf

^{xxix} <https://www.gov.uk/government/collections/countryside-stewardship-get-paid-for-environmental-land-management>

^{xx} <https://www.gov.uk/guidance/organic-farming-how-to-get-certification-and-apply-for-funding>

^{xxi} <https://www.agra-net.com/agra/agrow/markets-regulatory/north-america/us-epa-rebuffs-request-for-enlist-duo-decision-documents-534347.htm>

^{xxii} <https://www.agra-net.com/agra/agrow/markets-regulatory/north-america/us-epa-sued-for-withholding-enlist-duo-records--1.htm>

^{xxiii} <http://www.reuters.com/article/us-usa-monsanto-lawsuits-idUSKCN0S92H720151015>

^{xxiv} <https://www.schmidtlaw.com/roundup-lawsuit/>