

CI Campaigning Guide: Safer, more sustainable food for all

The purpose of this guide

The purpose of this guide is to assist Consumers International (CI) members in developing and implementing campaign proposals under the Green Action Fund theme for 2017 : Safer, More Sustainable Food For All. The Green Action Fund is run in partnership with the Swedish Society for Nature and Conservation (SSNC) and is made possible by the Swedish International Development Cooperation Agency (SIDA). The guide can be read in conjunction with the SSNC's report 'Organic food and farming for all: Consumers and farmers for food security, safe and sustainable food'

The guide is intended to give CI members a starting point from which to research and develop their own campaigns. The aim of the CI member campaigns under the theme of, 'Safer, more sustainable food for all' will be to highlight some of the problems associated with irresponsible use of pesticides in farming' and to drive consumer awareness and demand for food that is produced using alternative techniques that are not damaging to the health of consumers, farmers and the wider community, or to the environment.

This guide focusses on problems associated with the irresponsible use of pesticides including food safety and environmental issues as well as proposing some possible solutions. The guide also includes some campaign examples, suggested activities and sources of further information.

THE PROBLEM

1. Pesticide contamination of food and drink can be fatal

Some pesticides are so acutely toxic to humans that relatively high doses in contaminated food or water can cause immediate poisoning, sometimes with fatal results. The pesticide culprits in serious poisoning incidents are usually insecticides in the 'extremely' and 'highly hazardous' classes as defined by the World Health Organisation. Many of these are now banned in Europe but continue in use in low and middle income countries. Acute and fatal poisonings through contamination of food or drink are extremely rare in high income countries but all too common in the developing world. Ten poisoning incidents¹ in Latin America, Asia and Africa that made national or global headlines since 2008 hospitalised more than 500 people, with 47 fatalities. Foods involved ranged from cooked beans, maize, rice, fruit and contaminated water. The poisonings that make the headlines are

¹For references of these incidents, see PAN UK: January 2013: 'Summary of findings on residues in food'.

probably the tip of the iceberg, with many more incidents unreported and not considered in national statistics².

There are longer-term health issues associated with pesticide exposure via food

The concentrations of individual pesticides found as residues in a single food item are usually nowhere near the dose that would cause immediate acute poisoning. Regular eating or drinking of very low levels of different pesticides in food or drink items over time is a concern however, especially for pesticides which are known to cause adverse effects through prolonged exposure. Added to this are the uncertainties about the effects of mixtures of many different pesticide residues (the 'cocktail effect') which may interact inside the body to exacerbate harm. Emerging science on the impacts of pesticides at very low doses and in mixtures suggests that current safety levels need to be much stricter to properly protect human health, especially for children and other vulnerable groups.³ The main health concerns related to a daily diet of low level pesticide residues are **neurological effects, hormone disruption and increased risk of cancer**.

2. Residue levels are higher in low and middle income countries, and frequently exceed safety levels

EU residue data generally shows around 40% of all food samples contain residues. The proportion of samples sold in Europe which exceed EU Maximum Residue Levels (MRLS) is around 2%.⁴ The limited studies in low and middle income countries often show much higher proportions of foods above legal limits, for example, 43% of vegetables sampled from retail outlets in Thailand exceeded EU MRLs in a survey by PAN Thailand.⁵ Figures from Pakistan show 76% of chillies, 42% of cauliflower and 39% of okra exceeded MRLs.⁶

² Pesticide food and drink poisoning in Africa. Food & Fairness briefing no. 4, PAN UK, 2007. Via: <http://www.pan-uk.org/publications/food-fairness-briefings>

³ A Generation in Jeopardy: How pesticides are undermining our children's health & intelligence. PAN North America and Californians for Pesticide Reform, 2012. Via: <http://www.panna.org/publication/generation-in-jeopardy>

⁴ EU 2008 Annual Report on Pesticide Residues according to Article 32 of Regulation (EC) No 396/2005. EFSA Journal 2010; 8(7):1646. Via: <http://www.efsa.europa.eu/en/efsajournal/pub/1646.htm>

⁵ The pesticides on our plates. The Nation, Thailand, 21 Aug 2012. Via: <http://www.nationmultimedia.com/life/The-pesticides-on-our-plates-30188702.html>

⁶ Samples of vegetable, fruit found highly contaminated. Dawn.com newspaper, Pakistan, 3rd Dec 2012. Via: <http://dawn.com/2012/12/03/samples-of-vegetable-fruit-found-highly-contaminated/>

Concentrations found can sometimes be massively over MRLs: some of the Thai vegetables residues were 100- to 200-fold higher than EU permitted levels, while Greenpeace China's recent survey found 50-fold exceedances of Chinese MRLs.⁷ Another issue of concern is when residue testing reveals use of 'illegal' pesticides, either unauthorised for the particular crop or banned completely in the country. Brazil's 2011 government survey found 90% of peppers, 63% of cucumbers and 58% of strawberries contained unauthorised residues.⁸

3. Pesticides cause damage to the environment

Hazardous pesticides and risky practices can pollute the environment and harm wildlife, including beneficial species which pollinate crops, natural enemies which keep insect pests under control, and soil-dwelling organisms which play a role in recycling nutrients. There is a high potential for pesticides to end up in surface water via run-off.⁹ Water samples taken from rice and vegetable production areas along the Senegal River were found to contain residues of 19 different pesticides, 40% of which exceeded EU safety levels, sometimes by more than 100-fold. Experts judge that the entire aquatic ecosystem could be at risk of damage, from plankton to fish.¹⁰

Pesticide-related ill health is an unrecognised economic burden that impedes development

Recent UN Environment Programme data on health costs for smallholders from pesticide use in sub-Saharan Africa conservatively estimated costs of injury (lost work days, outpatient medical treatment, and inpatient hospitalization) from pesticide poisonings amounting to 6.2 billion USD during 2005-2009. UNEP has estimated potential costs of 90 billion USD from pesticide poisonings during 2015-2020, if no action is taken to control hazardous pesticides and poor practices.¹¹

In 2010, cowpeas from one production area in China were found highly contaminated with the illegal, toxic insecticide isocarbophos, banned for use on vegetables. Chinese authorities across

⁷ Banned pesticides detected on vegetables in Tesco and other supermarkets in China. [Greenpeace China blog posted](http://www.greenpeace.org/eastasia/news/blog/banned-pesticides-detected-on-vegetables-in-t/blog/36666/) -09-08, 2011. Via: <http://www.greenpeace.org/eastasia/news/blog/banned-pesticides-detected-on-vegetables-in-t/blog/36666/>

⁸ Toxic peppers: ANVISA warns of cancer risk from food contaminated with hazardous pesticides (in Spanish). RAPAL Enlace magazine 95, 2012, pp15-16

⁹ Pesticide Contamination in Groundwater and Streams Draining Vegetable Plantations in the Ofinso District, Ghana. Botwe et al. In: Soil Health and Land Management, InTech, 2010. Via: www.intechopen.com/download/pdf/25271

¹⁰ The West African Regional Integrated Production and Pest Management (IPPM) Programme. FAO, 2011. Via: www.fao.org/fileadmin/templates/agphome/documents/IPM/WA_IPPM_2011.pdf

¹¹ Global Chemical Outlook: Towards Sound Management of Chemicals. Synthesis Report for Decision-Makers, United Nations Environment Programme, 2012. Via: www.unep.org/hazardoussubstances/

several provinces destroyed more than 11,000 tons of cowpeas to prevent their consumption, at unknown cost to the food chains involved.¹²

4. Farmers in low and middle income countries employ risky practices when handling pesticides

These include a lack of respect for the safety period between last permitted pesticide application and harvest and exceeding the maximum number of applications permitted on the crop.¹³ A recent survey of how smallholders are using pesticides in 13 low and middle income countries revealed that hazardous products are routinely used in unsafe situations¹⁴ leading to frequent temporary poisoning episodes shortly after handling pesticides. Symptoms include headaches, nausea, skin or eye irritation and excessive salivation after spraying and blurred vision. Unsafe practices include failure to wear proper protective clothing, filling and washing spray tanks directly from streams, and failure to empty and dispose of containers properly.

Smallholder farmers are often associated with dangerous practices but larger farms' handling of pesticides can be dangerous too. Reports of farm workers and nearby residents affected by pesticides sprayed on larger enterprises are not uncommon.^{15, 16}

SOLUTIONS

1. A ban on highly hazardous pesticides

Poisoning incidents and environmental contamination are still widespread, despite the increase in pesticide legislation, policy efforts to reduce poisoning, training by the pesticide industry and the banning of some of the older, problematic pesticides. In 2006, The FAO Council called for a, "progressive ban of highly hazardous pesticides".¹⁷ In 2007, WHO and FAO launched an initiative on

¹² Officials in China at Odds Over Food Scandal. [EDWARD WONG](#) New York Times, March 2, 2010. Via: http://www.nytimes.com/2010/03/03/world/asia/03hainan.html?_r=0

¹³ Breaking the barriers to IPM in Africa: Evidence from Benin, Ethiopia, Ghana and Senegal. Williamson, S. In: *The Pesticide Detox: Towards a more sustainable agriculture*, Ed. J Pretty, Earthscan, London, 2005, pp. 165-180.

¹⁴ Communities in Peril: Global report on the health impacts of pesticides used in agriculture. PAN International, 2010. Via: http://www.pan-germany.org/download/PAN-I_CBIM-Global-Report_1006-final.pdf

¹⁵ Continued poisonings and protest force change in Latin America. S Williamson, *Pesticides News* 91, 2011, pp. 14-16.

¹⁶ [Perú: 397 trabajadores intoxicados con clorpirifos](#). News section PAN Latin America, 01/11/2012. Via: <http://www.rap-al.org/>

¹⁷ FAO (2006): Report of the council of FAO, 131st Session, Rome, 20-25 November 2006 (CL 131/REP)

Highly Hazardous Pesticides (HHPs), including options for phase outs, bans where appropriate and stressing the need to develop and promote safer alternatives for pest management.¹⁸

The process of defining what constitutes an HHP is still underway, although there is agreement that it needs to include chronic health and environmental hazards, as well as acute toxicity. PAN International launched its HHP list in 2009 with recommended criteria for identifying HHPs.¹⁹ The list includes around 450 pesticides, many of which are still in widespread use in low and middle income countries.

2. Support global initiatives to prevent chemical hazards

Several important global policy initiatives are now putting major emphasis on preventing chemical hazards, rather than only on efforts to mitigate their risks. Since 2006, the *Strategic Approach to International Chemical Management* (SAICM) has set the scene for concerted action on harmful side effects of chemicals. SAICM brings together governments, the private sector and civil society with the aim to achieve sound management of chemicals throughout their whole lifecycle by 2020 in order to protect human health and ecosystems. SAICM states that it is critical for all stakeholders to promote alternatives in order to reduce and phase out highly toxic pesticides.²⁰

The FAO/WHO *International Code of Conduct on the Distribution and Use of Pesticides* aims to improve pesticide management through this voluntary code of good practice, acknowledged as *the globally accepted standard*. In 2002, FAO revised the Code of Conduct to address the importance of reducing and eliminating pesticide hazards and dropped the term 'safe use', recognising that major weaknesses in pesticide management existed.²¹ The latest revision of the Code recommends that prohibitions on HHP import, distribution and purchase should be considered if risk mitigation measures or good marketing practices are insufficient to ensure that the product can be handled without unacceptable risk to humans and the environment.²² It urges stakeholders, including the food industry and supermarkets, to support information exchange on alternatives to HHP.

The *UN Environment Programme* has drawn attention to the hazards and economic costs of increasing 'chemical intensification' in low and middle income countries in its 2012 global overview on chemicals, including pesticides. It calls on governments and other stakeholders to regulate and reduce the use of chemicals of highest concern and substitute with safer alternatives. It also recommends strengthened surveillance and monitoring systems for chemical contaminants for

¹⁸ Highly Hazardous Pesticides. FAO webpages. Via: <http://www.fao.org/agriculture/crops/core-themes/theme/pests/code/hhp/en/>

¹⁹ PAN International List of Highly Hazardous Pesticides revised version January 2011. Via: http://www.pan-germany.org/gbr/project_work/highly_hazardous_pesticides.html

²⁰ Stop Pesticide Poisonings! New pesticide policies needed after decades of failure. PAN Germany, 2011. Via: http://www.pan-germany.org/download/Stop_Poisonings_110117_Final.pdf

²¹ The FAO Pesticide Code of Conduct: New responsibilities for food sector companies. Food & Fairness briefing no. 3. PAN UK, 2007. via: <http://www.pan-uk.org/publications/food-fairness-briefings>

²² International Code of Conduct on Pesticides Management. FAO Council, 14th session, Rome, 3-7 December 2012.

better decision making about environmental risks to human health, as well as further analysis of the economic cost of chemical effects.²³

3. More monitoring and consistent implementation of national legislation needed

Most low and middle income countries now have some form of legislation on pesticide regulations but rarely have the resources to monitor their implementation or to enforce controls on use. Although the FAO/WHO Code of Conduct calls on governments to implement a programme of monitoring of residues in food, animal feed, drinking water and the environment, many countries still have very little data on contamination levels.

4. Promote farming techniques that do not use chemical pesticides

The best way to reduce the environmental damage and risk to the health of farmers and consumers associated with the use of pesticides is to grow food using organic farming systems. Foods grown under organic systems is generally residue-free, for example, of 1,305 samples of fruit, vegetables, dairy and meat produce tested under the UK government monitoring scheme during 2000-2006 under 2% contained residues²⁴. The percentage is higher for organic food grown in the US, between 17-25% for fresh fruit and vegetables²⁵. A few pesticides are permitted in organic agriculture so residues of these might be expected. However, the majority of the residues found in organic produce are either a result of accidental cross-contamination with conventional treated produce (for example, residues from post-harvest fungicides used in storage facilities, or residues on packing crates) or of 'legacy' pesticides. These are organochlorine insecticides, such as DDT or its breakdown products, which have been banned for 20-30 years in many countries but which can persist in soil or the wider environment for decades.

Farming systems that reduce use of chemical pesticides using Integrated Pest Management (IPM) methods can reduce residue levels too, although this is not always the case. Analysis of the US public monitoring data shows that there is sometimes little difference in the frequency of residues found in IPM produce, compared with conventional produce²⁶. Much depends on the type of pest management methods used in IPM systems (which vary) and whether the programme has clear goals of promoting non-chemical methods as the preferred option and avoiding the use of highly hazardous pesticides as much as possible. West African Farmer Field School training programmes involving FAO and local NGOs emphasise ecologically-based methods such as use of neem seed extracts to repel pests and biopesticides which are safe for farmers and leave no residues. Trained farmers have achieved around 90% reduction in their use of synthetic pesticides²⁷, which should lead

²³ Global Chemical Outlook: Towards Sound Management of Chemicals. Synthesis Report for Decision-Makers, United Nations Environment Programme, 2012. Via: www.unep.org/hazardoussubstances/

²⁴ PAN UK database, based on UK government Pesticide Residues Committee figures.

²⁵ Simplifying the pesticide risk equation: the organic option. Charles Benbrook, The Organic Center, USA, 2008. Via: www.organic-center.org

²⁶ Op. Cit. 25

²⁷ The West African Regional Integrated Production and Pest Management (IPPM) Programme. FAO, 2011. Via: www.fao.org/fileadmin/templates/agphome/documents/IPM/WA_IPPM_2011.pdf

to major reductions in residue contamination. Comparing contamination levels of conventional cabbage and tomatoes bought from Senegalese markets with produce grown by trained organic and IPM farmers, no residues were detected in the produce from the trained farmers, while 23% of conventional produce contained residues (some of which exceeded safety levels for small children)²⁸.

5. Boost local markets for food without pesticide residues by educating consumers

Without better customer awareness of the benefits of organic and IPM farming, it is hard for dedicated farmer groups to increase sales and expand production. Trained organic and IPM vegetable farmers in Senegal explained that they face difficulties competing with conventional produce and there is almost no recognition by consumers, food traders or government that their produce is safer - containing zero or minimal residues and hugely reduced risk to the health of farm families and the environment.²⁹

“We believe that once they are aware, consumers can actively participate in the development of markets for safe and healthy food. In Senegal women have a crucial role to play in promoting safer fruits and vegetables since they have to go to the market and supply the whole family. By demanding safer food in the shopping basket, consumers can support more producers to adopt farming methods that do not use pesticides or use them in acceptable quantities.” – Mr Maguette Fall, President of the Association for the Defence of the Environment and Consumers , CI Affiliate Member in Senegal, 2009

HOW?

Planning your campaign

Below are some suggested activities for CI members or others planning a campaign. Activities intended to raise consumer awareness are listed separately from advocacy activities. It is likely however, that a successful campaign will employ a combination of these activities.

Research who else is working on this issue. Many campaigning activities will be more effective and reach a wider audience if organised in collaboration with farmer groups using organic methods and with NGOs working on pesticide issues, public health or environmental protection.

²⁸ Smallholders and pesticide issues in fresh fruit and vegetable supply chains, with a focus on Senegal. Food & Fairness case study. PAN UK, 2008. Via: <http://www.pan-uk.org/publications/food-fairness-case-studies>

²⁹ Promoting organic and IPM markets in Senegal. S Badji. *Pesticides News* 79 pp10-11, 2008. Via: <http://www.pan-uk.org/pestnews/Issue/pn79/pn79pp10-11.pdf>

The kind of high-profile residue testing and media campaigns run by some Greenpeace and other NGOs can be very effective but are probably not feasible for CI members in many low and middle income countries, unless significant extra funds are available.

Raising consumer awareness of health risks from hazardous pesticides

Organic food is sometimes viewed as a luxury, affordable only for middle-class consumers in the North. In 2011, Brazil's Public Health Surveillance Agency made a specific recommendation to the public to eat organic food in response to the high levels of residues found by the national monitoring programme.³⁰ The Agency also recommended consumers to choose foods in season (when pest pressure is lower and thus the need for pesticide use is less) and food grown under IPM systems, in order to reduce their intake of residues. The Agency has urged supermarkets to play a role in sourcing more produce from farmers who comply with pesticide controls and Good Agricultural Practice.

For many consumers, whether in the North or South, eating a 100% organic diet may not be affordable or some organic foods may be unavailable where they shop. Knowledge about which foodstuffs most frequently contain residues and which are most highly contaminated can enable consumers to focus on buying organic options for a few key foods relevant for their family. Several NGOs in Europe and North America publish consumer guides identifying the worst contaminated foods, based on national monitoring data or their own testing programmes.^{31, 32, 33} The value of this information to help consumers in their purchasing choices has been highlighted by public health experts.³⁴ A similar approach is being followed now by Greenpeace China and Taiwan groups in their consumer food safety campaigns.^{35, 36}

³⁰ Toxic peppers: ANVISA warns of cancer risk from food contaminated with hazardous pesticides (in Spanish). RAPAL Enlace magazine 95, 2012, pp15-16.

³¹ What's on my food? Website from PAN North America. Via: <http://www.whatsonmyfood.org/index.jsp>

³² Shopper's Guide to Pesticides in Produce. Environmental Working Group, US, 2012. Via: <http://www.ewg.org/foodnews/>

³³ Pesticides in your food. PAN UK web guide. Via: <http://www.pan-uk.org/food/>

³⁴ Assessing Children's Dietary Pesticide Exposure: Direct Measurement of Pesticide Residues in 24-Hr Duplicate Food Samples. Lu et al., 2010. Environmental Health Perspectives 118 (11) 1625-1630.

³⁵ Banned pesticides detected on vegetables in Tesco and other supermarkets in China. Greenpeace China blog posted -09-08, 2011. Via: <http://www.greenpeace.org/eastasia/news/blog/banned-pesticides-detected-on-vegetables-in-t/blog/36666/>

³⁶ Wellcome leads survey on food pesticide control [Taiwan]. Taipei Times, 23 Jan 2012 Via: http://www.taipeitimes.com/News/taiwan/archives/2013/01/23/2003553228?dm_i=1ANQ,18ORT,6LQ0U6,477FB,1

Suggested activities to raise consumer awareness

- Produce leaflets/postcards/posters or radio spots for consumers explaining health risks from consuming contaminated food and drink, health risks for farm families, water pollution, and point to any organic farmer associations or retail outlets selling their produce.
- Deliver practical workshops in schools or colleges.
- Write briefings or press releases for newspaper journalists. *Include recent, locally relevant data and quotes.*
- Liaise with journalists/documentary producers.
- Create 'Shoppers Guide' identifying worst contaminated foods and safer alternatives. *You'd need access to good quality, recent residue monitoring data at national or city/province level for a range of pesticides and main foods in the weekly shopping basket.*

Linking consumers with farmers

Bringing together interested consumers and organic farmer associations is an effective way to link the two ends of the supply chain for safer food and more sustainable farming, without the much higher premiums paid by consumers in the North for organic produce. The women's network for organic and fair trade (REFABEC) in Senegal sells organic produce directly to consumers via a stall at the weekly market in Thies city and a small café, where consumers can buy fresh and preserved produce from more than 100 organic farmers. Direct sales give the farmers a decent income, while keeping prices affordable for their customers. The Federation of Horticulture Producers in Les Niayes zone in Senegal, an association of 1,700 small and medium scale farmers trained in IPM, is developing a "Rainbow" label to brand their produce. The Federation also aims to sell more of their produce direct to schools and hospitals to provide healthier food for children and patients and guarantee a more reliable outlet for their produce than the traditional market traders.

Similar initiatives are underway elsewhere, for example, the community-managed sustainable agriculture (CMSA) movement in India has helped thousands of small-scale farmers generate a surplus beyond their family needs, with minimal or zero use of agrochemicals. Rice, vegetables and other foods grown by CMSA farmer groups now command 14-33% higher prices than conventional products in urban retail markets.³⁷ Growing market demand for pesticide-free produce within India has convinced the movement to start converting to fully organic methods as a logical next step and retail outlets for organic farmers' produce from 626 villages were set up in 2012.³⁸

Suggested activities to link consumers with farmers

- Liaise with organic farmers to find out what types of produce they grow, when and in what volumes. Consider helping to set up a network of 'farmers for safe food'.

³⁷ Ecologically sound, economically viable: community managed sustainable agriculture in Andhra Pradesh, India. Vijay Kumar et al., World Bank, 2009.

³⁸ Campaign for pesticide residue-free food. The Times, India, 25 June 2012. Via: <http://timesofindia.indiatimes.com/city/delhi/Campaign-for-pesticide-residue-free-food/articleshow/14390654.cms>

- Discuss with organic farmer groups ways to overcome their marketing problems. For instance, it might be possible to co-organise transport to a central point, start preserving unsold fresh produce as jams and sauces, or package produce more attractively.
- Explore options for direct sales of small volumes via community groups, box schemes, weekly stalls, etc. Partial payment in advance via a farmer support 'subscription' can be considered by community groups.
- Look for any 'Unique Selling Points' for produce from organic farmers, eg, does the produce have qualities such as a better taste or a longer shelf-life than conventional produce?
- Organise tasting sessions for the public, community groups or public institutions of organic produce, enabling farmers to meet potential customers. It may be useful to talk about why cosmetic appearance of fruit and vegetables is no indication of its wholesomeness, ie, using organic methods may mean produce has minor blemishes, irregular size or colour in produce but this does not affect nutritional quality. Large, uniform, physically 'perfect' conventional produce looks good but it may well contain high levels of hazardous pesticides.
- Produce materials to publicise where people can buy safe food from *bona fide* organic farmers and highlight its benefits.
- Develop 'participatory guarantee' quality control or 'pledge' systems to assure consumers that pest management from participating farmer groups follows good practices. *This may require oversight by consumer, farmer, NGO and government agency representatives.*
- Organise safe and sustainable food fairs, linked to local celebrations, health or food related events, and Green Action Week.
- Explore whether any market traders or supermarkets are willing to source regularly from organic farmer groups, if you can convince more consumers to buy from them.

Advocacy with supply chains and governments

In countries where consumers buy a substantial portion of their food from supermarkets, such as urban China, Taiwan and Thailand, environmental NGOs and consumer groups are collaborating on media campaigns to push retailers to take action on residues in food and to source from farms that use more sustainable methods. While NGO media campaigns in Europe and the US have often focussed entirely on consumer risks, their developing country counterparts also highlight the health benefits to farm families and aquatic ecosystems if supply chains support more farmers to convert to ecologically-based methods. Lobbying relevant government agencies to promote organic methods and design policies to support safer food forms another strand of advocacy by NGOs.

Consumer groups can find it helpful to form coalitions with NGOs or farming groups. In India in 2012, a coalition of NGOs formed [Alliance for Sustainable and Holistic Agriculture](#) (ASHA) to build public pressure for safer food and farming. Demands were made for government to: invest in promoting ecological farming; ensure access to organic food by establishing safe food outlets and using public procurement; provide pesticide-free food schemes to pregnant and lactating women and children; ban pesticides with known chronic health impacts, already banned in other countries. Online mobilization and cyber-actions included: organic and safe food fairs in major cities, combined information on how to 'grow your own' food in urban gardens; a public march against pesticides.

Achievements: ASHA discussed pesticide residues and chronic health problems on national TV chat show. Retail outlets now set up for organic produce from around 600 villages.

Suggested activities to advocate for change in government policy or food supply chains

- Take politicians and government officials to visit organic farmer associations in the field, taste their produce and discuss ways to support their production and marketing.
- Find supportive parliamentarians to raise questions to the government about residues in food or support for safer food production.
- Analyse proposed government policies on food, agriculture, rural development, health or environment and identify where practical support for organic approaches can be included.
- Join forces with farmer associations to demand actions in agriculture promotion programmes to support more farmers to adopt organic methods.
- Lobby for schools, hospitals, public sector canteens to start sourcing at least some of their food from national organic farmer associations.
- Encourage consumers to ask retailers questions about pesticide use in food sold and demand safer food, eg, via postcards or petitions to hand into supermarkets.
- Identify which HHPs according to the PAN International list are in use in farming and/or found as residues in food and water in your country, publicise these and ask the authorities to prioritise safer pest management methods for these.

Further information

PAN International List of Highly Hazardous Pesticides Explains also the initiative by FAO and WHO to reduce use and phase out HHPs. Available via: http://www.pan-germany.org/gbr/project_work/highly_hazardous_pesticides.html

Stop Pesticide Poisonings! New pesticide policies needed after decades of failure. PAN Germany, 2011. Includes a historical timeline of international policy tools to control pesticide use. Via: http://www.pan-germany.org/download/Stop_Poisonings_110117_Final.pdf

Global Chemical Outlook: Towards Sound Management of Chemicals. Synthesis Report for Decision-Makers, United Nations Environment Programme, 2012. Latest expert assessment highlighting the 'chemical intensification' in developing countries in particular, including pesticides, electronic and other industrial chemicals, and the need for action on safer alternatives. Includes useful data on the economic cost of pesticide-related illness in Africa. Via: www.unep.org/hazardoussubstances/

Highly Hazardous Pesticides factsheet series. PAN Asia Pacific, 2011. Short leaflets summarising health and environmental hazards of some commonly used pesticides in developing countries. Via: <http://www.panap.net/en/p/page/pesticides-campaigns-hhps/185>

Pesticide food and drink poisoning in Africa. Food & Fairness briefing no. 4. PAN UK, 2007. 4 page briefing describing poisoning incident data in Senegal, Benin, Ghana and Ethiopia.

Hidden costs of pesticide use in Africa. Food & Fairness briefing no. 2. PAN UK, 2007. 4 page summary of data from African countries on the economic costs of poisonings.

Hazardous pesticides and health impacts in Africa. Food & Fairness briefing no. 6. PAN UK, 2007. 4 page briefing describing poisoning incident data from PAN partners' research in Senegal, Benin, Ghana and Ethiopia, highlighting that farm women and children are often affected, as well as those directly handling pesticides.

All the above briefings available via: <http://www.pan-uk.org/publications/food-fairness-briefings>

Smallholders and pesticide issues in fresh fruit and vegetable supply chains, with a focus on Senegal. Food & Fairness case study. PAN UK, 2008. 27 page report, describing hazardous pesticide practices in horticulture, the 'double standards' of efforts in export production to protect European consumers while little attention is paid to African consumers. Via: <http://www.pan-uk.org/publications/food-fairness-case-studies>

Promoting organic and IPM markets in Senegal. *Pesticides News* 79 pp10-11, 2008. Article from PAN Africa surveys with consumers and vendors in two Senegalese cities, highlighting how consumer and retailer perceptions limit demand for safer food and opportunities to change the situation. Via: <http://www.pan-uk.org/pestnews/Issue/pn79/pn79pp10-11.pdf>

Challenges for organic and IPM farmers in Senegal. *Pesticides News* 84 pp12-15, 2009. Article from PAN Africa on smallholder experiences and obstacles in growing and marketing vegetables with reduced or zero pesticide inputs. Via: http://www.pan-uk.org/pestnews/Free%20Articles/PN84_12-15.pdf

Ghana's Pesticide Crisis, The Need for Further Government Action. Christian Aid and Northern Presbyterian Agricultural Services, 2012. Report on work with farming communities in northern Ghana, demonstrating widespread poisonings and ill health, including incidents from contaminated food in rural households. Summarises scientific studies on residue levels in Ghanaian foods and health risks and explains what needs to change in government policies and controls on pesticides and the need to promote safer farming methods. Via: <http://www.christianaid.org.uk/images/ghanas-pesticide-crisis.pdf> Summary press release via: <http://www.christianaid.org.uk/pressoffice/pressreleases/april-2012/pesticide-misuse-major-threat-farmers-health-food-1904.aspx>

News section of PAN Latin America (RAPAL). Spanish language only. Regular news items from around the continent on pesticide poisoning incidents, advocacy for tighter government controls and citizen campaigns against large-scale spraying operations affecting people's health. Via: <http://www.rap-al.org/>

Rociando Veneno (Spraying Poison). TV documentary in Spanish, with PAN Chile, 2013. Includes discussion of health risks from residues in food. Via: http://www.rap-al.org/index.php?seccion=8&f=news_view.php&id=584

PAN Africa posters and cartoon booklets on pesticide hazards. PAN Africa, various dates. Include awareness-raising materials about the risks of food contamination and poisoning in farm families. Available in French and English via: http://pan-afrique.org/index.php?option=com_content&task=view&id=81&Itemid=127